# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





# **U.S.** Department of Agriculture

NOV 1 8 1986

ATALOGING = PREP.

# 1987 BUDGET EXPLANATORY NOTES FOR COMMITTEE ON APPROPRIATIONS

**FOREST SERVICE** 



#### -- NOTE TO READERS --

The specific impact on the Forest Service FY 1986 Appropriation from the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177, will not be known until March 1, 1986.

Based on information published by the Office of Management and Budget, the estimated reductions due to the act are displayed on all funding charts under the column entitled:

1986 Estimate with DCA Reduction This page left intentionally blank

# **Forest Service**

Contents		Page
	Forest Service Mission and Organization	1
	Highlights of the 1987 Request Summary of receipts Three-year summary of appropriations	7 11 12
	Forest Research Fire and atmospheric sciences research Forest insect and disease research Forest inventory and analysis Renewable resources economics research Trees and timber management research Watershed management and rehabilitation research Wildlife, range, and fish habitat research Forest recreation research Forest products and harvesting research Special projects, competitive grants	13 24 27 31 34 37 40 44 47 50 53
	State and Private Forestry  Forest pest management  Fire protection  Forest management and utilization  Special projects	61 65 75 77 88
	Minerals area management Real estate management Land line location Maintenance of facilities Forest fire protection Fighting forest fires Cooperative law enforcement Forest road maintenance Forest trail maintenance Timber sales administration and management Reforestation and stand improvement Recreation use Wildlife and fish habitat management Range management Soil, water, and air management General administration Forest Service/BLM interchange	100 108 115 124 126 127 135 136 137 141 143 157 164 171 183 189 195 209
	Construction Construction of facilities Forest road construction Timber purchaser road construction (PCP) Trail construction	217 219 231 241 242

Land Acquisition Land & Water Conservation Fund (L&WCF)	247 248
Other Appropriations:  Acquisition of lands for National Forests, special acts Acquisition of lands to complete land exchanges Miscellaneous Trust Funds: gifts, donations, and bequests for forest and rangeland research Range Betterment Fund Operation and maintenance of recreation facilities Youth Conservation Corps	251 253 255 256 258 259 260
Permanent appropriationsWorking Funds	273
Permanent appropriationsPayment Funds	283
Trust funds	293
Reforestation Trust Fund	299
Human resource programs	305
Language changes	313
Administrative provisions	316
Passenger-carrying vehicles Federal excess personal property, vehicles and aircraft Detail of permanent positions Base calculation National Forest System appropriation, by forest Construction appropriation, by forest Summary of progress on implementation of forest level information processing system (FLIPS) Land management planning USDA funds available for research and control of	321 321 323 324 325 326 330 334 336
gypsy moth, tussock moth, and southern pine beetle	339





### Mission and Organization

The Forest Service has the Federal responsibility for national leadership in forestry. This role includes participating at the national level in setting priorities, establishing policies, and formulating and implementing programs.

The primary purpose of Forest Service programs is to provide maximum benefits to the public through proper management and use of renewable natural resources in the Nation's forests and rangelands. These benefits take the form of wood and paper products, energy and minerals, wilderness, red meat, fish, wildlife, water, and a high quality environment for outdoor recreation. All are essential and contribute to the economic and social well-being of Americans.

The development of human resources is an added and valuable part of the Forest Service mission. The Forest Service administers and hosts programs that provide work, training, and education to the unemployed, underemployed, elderly, young, and others with a productive potential.

The Forest Service carries out its mission through programs in three major areas:

Forest Research

Forest Service research develops knowledge and technology to enhance the economic and environmental values of the Nation's 1.6 billion acres of forest and related rangeland. This program seeks better ways to use forest and rangeland resources by developing technology to reduce costs, increase productivity, and protect environmental quality.

Forest Service research involves an extensive array of biologic, economic, engineering, and social disciplines. The program is coordinated with research at 61 forestry schools and State agricultural experiment stations at land grant institutions. This research also supports international forestry through cooperation with other U.S. agencies, the United Nations, and foreign countries.

State and Private Forestry

Forest Service cooperative State and private forestry programs protect natural resources and improve management and production on nonindustrial private forest lands. These programs are delivered through State Foresters or equivalent State officials providing assistance and coordination to landowners, operators, wood processors, and State and local agencies.

Fifty-eight percent of the Nation's commercial forest land is in non-industrial private ownership. Such lands total more than 278 million acres and are important in meeting national needs for natural resources. Federal assistance is provided for specific activities and projects of national benefit to improve the productive potential and efficient use of these lands.

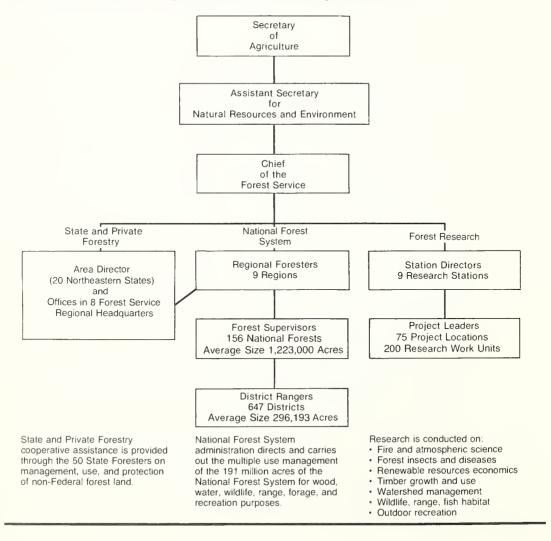
Federal assistance is targeted to fulfill Federal roles and meet national interest objectives which protect non-Federal wildlands from fire; reduce losses of timber and wood products from damaging insects and diseases; increase timber growth and harvests; protect soil and water resources; manage forest resources in rural and urban areas for multiple uses; and improve efficiency and reduce waste in wood product harvesting, processing, and marketing.

Management of National Forests and Grasslands

The Forest Service manages about 191 million acres of public land in 44 States, Puerto Rico, and the Virgin Islands. These public lands, known collectively as the National Forest System, encompass 156 National Forests, 19 National Grasslands, and 16 Land Utilization Projects. The natural resources on these lands are some of the Nation's greatest assets and have major economic, environmental, and social significance for all Americans.

The Forest Service manages the National Forest System under the multiple use concept for forage, fish and wildlife, water, wilderness, outdoor recreation, and sustained production of timber. The energy and mineral resources on these lands also contribute significantly toward meeting the Nation's needs for hard rock minerals, coal, oil, gas, and geothermal resources.

#### United States Department of Agriculture Forest Service Organizational Chart





# Field Offices of the Forest Service

**United States Department of Agriculture** 



## **REGIONAL HEADQUARTERS** AND NATIONAL FORESTS

Northern Region Federal Bldg. P.O. Box 7669 Missoula, MT 59807			Southwestern Region Federal Bldg. 517 Gold Ave. SW. Albuquerque, NM 87102			Pacific Southwest Region 630 Sansome St. San Francisco, CA 94111 California		
Idaho			Arizona		1	Angeles	Pasadena	91101
Clearwater	Orofino	83544	Apache-Sitgreaves	Springerville	85938	Cleveland	San Diego	92188
Idaho Panhandle Nati		00011	Coconino	Flagstaff	86001	Eldorado	Placerville	95667
Forests1	Coeur d'Alene	83814	Coronado	Tucson	85701	Inyo	Bishop	93514
Coeur d'Alene			Kaibab	Williams	86046	Klamath	Yreka	96097
Kaniksu			Prescott	Prescott	86301	Lassen	Susanville	96130
St. Joe			Tonto	Phoenix	85038	Los Padres	Goleta	93117
Nezperce	Grangeville	83530				Mendocino	Willows	95988
•			New Mexico			Modoc	Alturas	96101
Montana			Carson	Taos	87571	Plumas	Quincy	95971
Beaverhead	Dillon	59725	Cibola	Albuquerque	87112	San Bernardino	San Bernardino	92408
Bitterroot	Hamilton	59840	Gila	Silver City	88061	Sequoia	Porterville	93257
Custer	Billings	59103	Lincoln	Alamogordo	88310	Shasta-Trinity	Redding	96001
Deerlodge	Butte	59703	Santa Fe	Santa Fe	87501	Sierra	Fresno	93721
Flathead	Kalispell	59901				Six Rivers	Eureka	95501
Gallatin	Bozeman	59715				Stanislaus-Calaveras		05330
Helena	Helena	59626			The state of the s	Big Tree <sup>1</sup>	Sonora	95370
Kootenai	Libby	59923				Tahoe	Nevada City	95959
Lewis and Clark	Great Falls	59403						
Lolo	Missoula	59801						

Rocky Mountain Region
11177 West 8th Ave.
P.O. Box 25127
Lakewood, CO 80225

Colorado

Shoshone

Arapaho-Roosevelt1	Ft. Collins	80526
Grand Mesa, Uncomp	ahgre,	
and Gunnison1	Delta	81416
Pike-San Isabel <sup>1</sup>	Pueblo	81008
Rio Grande	Monte Vista	81144
Routt	Steamboat Springs	80477
San Juan	Durango	81301
White River	Glenwood Springs	81602
Nebraska		
Nebraska-		
Samuel R. McKelv	ie <sup>1</sup> Chadron	69337
South Dakota		
Black Hills	Custer	57730
Wyoming		
Bighorn	Sheridan	82801
Medicine Bow	Laramie	82070

Intermountain Region
Federal Bldg.
324 25th St.
Ogden, UT 84401

Idaho Boise

Caribou

Bridger-Teton1

Carrooa	A CHECKEN	00201
Challis	Challis	83226
Payette	McCall	83638
Salmon	Salmon	83467
Sawtooth	Twin Falls	83301
Targhee	St. Anthony	83445
Nevada		
Humboldt	Elko	89801
Toiyabe	Reno	89501
Utah		
Ashley	Vernal	84078
Dixie	Cedar City	84720
Fishlake	Richfield	84701
Manti-LaSal	Price	84501
Uinta	Provo	84603
Wasatch-Cache <sup>1</sup>	Salt Lake City	84138
Wyoming		

Roise 83702 Pocatello 83201

Jackson 83001

#### Pacific Northwest Region 319 SW Pine St. P.O. Box 3623 Portland, OR 97208

Oregon		
Deschutes	Bend	97701
Fremont	Lakeview	97630
Malheur	John Day	97845
Mt. Hood	Gresham	97030
Ochoco	Prineville	97754
Rogue River	Medford	97501
Siskiyou	Grants Pass	97526
Siuslaw	Corvallis	97339
Umatilla	Pendleton	97801
Umpqua	Roseburg	97470
Wallowa-Whitman	Baker	97814
Willamette	Eugene	97440
Winema	Klamath Falls	97601
Washington		
Colville	Colville	99114
Gifford Pinchot	Vancouver	98660

Mt. Baker-Snoqualmie

Okanogan

Wenatchee

Olympic

Cody 82414

Revised January 1983 Slightly Revised August 1984

98104

Seattle

Okanogan 98840

Olympia 98507

Wenatchee 98801

<sup>&</sup>lt;sup>1</sup>Two or more separately proclaimed National Forests under one supervisor.

Eastern Region 310 West Wiscons Milwaukee, WI 53			Southern Region 1720 Peachtree Rd Atlanta, GA 30367	,		Southern Region (c North Carolina	ontinued)	
Illinois			Alabama			National Forests in North Carolina	Asheville	28802
Shawnee Indiana and Ohio	Harrisburg	62946	National Forests in Alabama <sup>1</sup> William B. Bankhead	Montgomery	36107	Croatan Nantahala Pisgah Uwharrie		
Wayne-Hoosier <sup>t</sup> Michigan	Bedford	47421	Conecuh Talladega Tuskegee			Puerto Rico		
Hiawatha Huron-Manistee <sup>†</sup> Ottawa	Escanaba Cadillac Ironwood	49829 49601 49938	Arkansas Ouachita	Hot Springs Nat'l Park	71901	South Carolina Francis Marion and Sumter	Rio Piedras Columbia	
Minnesota			Ozark-St. Francis'	Russellville	72801	Tennessee		
Chippewa Superior	Cass Lake Duluth		Florida			Cherokee	Cleveland	37311
Missouri <sup>Mark</sup> Twain New Hampshire and		65401	National Forests in Florida <sup>1</sup> Apalachicola Choctawatchee Ocala Osceola	Tallahassee	32308	Texas  National Forests in Texas'  Angelina Davy Crockett	Lufkin	7590
White Mountain Pennsylvania	Laconia	03246	Georgia Chattahoochee and			Sabine Sam Houston		
Allegheny	Warren	16365	Oconee', Kentucky	Gainesville	30501	Virginia George Washington	Harrisonburg	22801
Vermont Green Mountain and Finger Lakes	Rutland	05701	Daniel Boone Louisiana	Winchester	40391	Jefferson	Roanoke	
West Virginia			Kisatchie	Pineville	71360	Alaska Region Federal Office Bldg	١.	
Monongahela	Elkins	26241	Mississippi			P.O. Box 1628	,-	
<b>Wisconsin</b> Chequamegon Nicolet	Park Falls Rhinelander		National Forests in Mississippi <sup>1</sup> Bienville Delta De Soto	Jackson	39269	Juneau, AK 99802 Alaska Chugach	Anchorage	99504
			Holly Springs Homochitto Tombigbee			Tongass-Chatham Tongass-Ketchikan Tongass-Stikine	Sitka Ketchikan Petersburg	99835 99901

# RESEARCH HEADQUARTERS AND STATE AND PRIVATE FORESTRY

Intermountain Forest and Range Experiment Station 507 25th St., Ogden. UT 84401

North Central Forest Experiment Station 1992 Folwell Ave., St. Paul, MN 55108

Northeastern Forest Experiment Station 370 Reed Rd., Broomall, PA 19008

Pacific Northwest Forest and Range Experiment Station P.O. Box 3890, Portland, OR 97208

Pacific Southwest Forest and Range Experiment Station 1960 Addison St., P.O. Box 245, Berkeley, CA 94701

Rocky Mountain Forest and Range Experiment Station 240 West Prospect Ave., Fort Collins, CO 80526

Southeastern Forest Experiment Station 200 Weaver Blvd., Asheville, NC 28804

Southern Forest Experiment Station T-10210 U.S. Postal Service Bldg., 701 Loyola Ave., New Orleans, LA 70113 Forest Products Laboratory Gifford Pinchot Dr. P.O. Box 5130 Madison, WI 53705

#### State and Private Forestry

State and Private Forestry offices are located in the Regional Headquarters, except for the Eastern Region. This S&PF office is at:

Northeastern Area—S&PF 370 Reed Rd. Broomall, PA 19008



## Highlights of the 1987 Request

<u>Appropriation</u>	FY 1986 Appropriation (	Reduction	FY 1987 Estimate thousands)	Inc.(+) or Dec.(-)
Forest Research: Regular research appropriation \$ Special projects, competitive grants. Subtotal, Forest Research \$ FTE	118,726 6,799 125,525 2,416	113,620 6,507 120,127	111,481  111,481 2,313	-7,245 -6,799 -14,044 -103
State and Private Forestry \$ FTE	57,638 552	55,160 	24,871 433	-32,767 -119
National Forest System\$	1,078,301 <u>1</u> / 25,185	1,031,934	894,488 21,621	-183,813 -3,564
Construction\$	222,522 3,855	212,954	195,197 3,679	-27,325 -176
Land Acquisition \$ FTE	28,130 77	26,920	3,206 70	-24,924 -7
Acquisition of Lands for National Forests, Special Acts\$	777 1	744 	966 1	
Acquisition of Lands to Complete Land Exchanges\$ FTE	20 	19		+875 
Miscellaneous Trust Funds\$	89 	85 	90 	+1 
Range Betterment Fund\$	3,798 62	3,635	3/ 3,800 62	+2
Operation and Maintenance of Recreation Facilities\$ FTE	 		52,000 1,307	+52,000 +1,307
Youth Conservation Corps\$	(3,380) <u>2</u> /	(3,235)		(-3,380)
Permanent Appropriations\$	379,657 2,333	363,330	<u>3</u> / 220,287 2,219	-159,370 -114
Trust Funds\$	155,091 2,601	149,898	3/ 197,616 3,128	+42,525 +527
Reforestation Trust Fund\$	(30,000) <u>1</u> /	(28,710)	$\frac{3}{}$ 30,000 600	+30,000 +600
Total, Regular Forest Service \$ FTE	2,051,548 37,082	1,964,806	1,734,897 35,433	-316,651 -1,649
Transfer Accounts FTE	1,218		1,322	+104
TOTAL\$ FTE	2,051,548 38,300	1,964,806	1,734,897 36,755	-316,651 -1,545

Includes \$30,000,000 transferred from Reforestation Trust Fund (P.L. 99-190). YCC program is financed with any funds available to Forest Service. The Deficit Control Act reductions in Acquisition of Lands to Complete Land Exchanges; Range Betterment Fund; Permanent Appropriations; Trust Funds; and Reforestation Trust Fund are reductions in planned obligations, since budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

The changes between the FY 1986 program and the FY 1987 request are highlighted below.

#### Forest research

The FY 1987 Forest Service Research request is 11.2 percent less than the FY 1986 appropriation. This decrease continues to reflect the President's overall objectives to improve efficiency and reduce costs by further streamlining the Forest Service research organization.

Significant actions planned in FY 1987 to help achieve these objectives include:

- Maintaining a stable research organization while achieving budget reductions
  - reducing the overall research effort in all program areas
  - accelerating close-out of nearly completed work
  - stretching out or delaying several research efforts
  - improving management, support, and efficiency
  - terminating the competitive forestry research grants program
  - reducing lower priority atmospheric deposition research
- terminating seven research work units and closing four research locations

The FY 1987 program concentrates on research that will help improve the Nation's economic condition while maintaining an adequate level of protection for forest and rangeland resources. Highest priority ongoing research will be maintained in most programs.

# State and private forestry

The FY 1987 State and Private Forestry request is about 57 percent less than the FY 1986 appropriation. Federal personnel will be reduced 22 percent.

This reduction in funding limits the Federal role in promoting management of forested lands in State and nonindustrial private ownership to providing assistance for specific activities and projects of national benefit. The Federal role will provide limited specialized technical assistance, collect and analyze data nationwide, provide coordination, and serve as an information clearinghouse.

The primary emphasis of the proposed budget will be forest pest management on Federal lands, including a base level of surveillance, evaluation, and suppression. Cooperative fire protection will provide a base level of technical assistance and data collection.

High priority special projects, such as production of the Douglas-fir tussock moth virus and the National Agricultural Pesticide Impact Assessment Program, will be carried out.

All financial assistance to States will be discontinued except the grant to Minnesota for intensive forest management associated with the Boundary Waters Canoe Area Wilderness legislation.

A small Federal staff will be retained to provide the highest priority coordination, technical assistance, and national data collection and analysis. In Forest Pest Management, the Cooperative Pest Action Program and cooperative insect and disease suppression projects will be eliminated. Programs in forest resource management, wood utilization, seedling production, nursery and tree improvement, urban forestry, and activities for management improvement will also be eliminated.

#### National Forest System

The FY 1987 National Forest System (NFS) request is about 11 percent less than the FY 1986 appropriation. This proposal includes a decrease in the timber sales program from 11.4 billion board feet in FY 1986 to 10.0 billion board feet in FY 1987.

The FY 1987 program provides for preparing and offering 7.4 billion board feet of new timber sales and the reoffer of 2.6 billion board feet of timber sales turned back as a result of the Federal Timber Contract Payment Modification Act of 1984.

It also provides funds for the sale of 200 million board feet of timber from the Oregon and California Grant Lands that have been historically administered by the Forest Service.

The FY 1987 program is responsive to the demand for strategic and energy-related minerals.

Resource management activities, including recreation, wildlife and fish habitat, and public access, are for the most part being maintained at current levels.

Administration of special uses will focus on the most critical needs. New applications will be processed in a timely manner in connection with projects that can produce increasing revenues or which are essential for public health and safety.

The FY 1987 forest fire protection program request has been decreased by \$11.0 million from the FY 1986 appropriation.

A total of 2,450,000 is requested for the cooperative law enforcement program. This includes 2,000,000 for the cannabis program.

#### Construction

The proposed FY 1987 construction request is about 12.3 percent less than the FY 1986 appropriation (not including the use of timber purchaser road credits).

The road construction program will emphasize access for timber sales with roads that respond to immediate project needs. Increased costs for better roads will be incurred only when such action clearly shows a cost effective advantage. In keeping with the need to constrain Federal expenditures, only the highest priority projects for road reconstruction are being proposed.

Facilities construction will continue to focus on abating high hazard health and safety deficiencies in research, recreation, fire, administrative, and other facilities. Priority will also be given to facilities that support resource output and protection goals and increase fee receipts.

Forest Road Program (FRP) funds are used for work associated with planning, designing, and constructing roads, including rights-of-way acquisition, regardless of the source of funds used for the actual construction of the project. In FY 1987, 12 percent of all road miles will be constructed from FRP funds and 88 percent will be constructed from Purchaser Credit Program (PCP) and Purchaser Election Program (PEP) funds. FRP funds will also be used to augment Purchaser Construction where analyses have shown it is more cost effective to construct a road of higher standard than that required for the immediate timber sale.

#### land acquisition

The appropriation was established by Congress in FY 1982 and includes land acquisition under the Land and Water Conservation Fund (L&WCF).

Land and interests are acquired within the National Forest System for recreation, wilderness, endangered species, wildlife habitat management areas, and other areas important for public outdoor recreation purposes. From FY 1965 through FY 1981, the L&WCF dollars were appropriated to the Department of the Interior for allocation to the appropriate agencies, including the Forest Service. In FY 1982, Congress appropriated the funds directly to the agencies. The FY 1987 request for the Forest Service is intended to cover the cost of completing existing cases.

# Productivity and efficiency

The Forest Service is continuing its efforts to reduce administrative costs by streamlining organizations, programs, and procedures while maintaining a basic on-the-ground work force and an effective delivery system for providing public services. To further this objective, the Region and Station organizational configuration, which has existed for almost 20 years, needs to be reexamined and adjusted to most efficiently meet future needs.

In support of the Administration's cost saving initiatives and the Department of Agriculture's Management Improvement Plan, the Forest Service conducted the National Administrative Review, Federal Field Structure Review, and Productivity Improvement Team (PIT) studies. The cost saving actions identified in these reviews and studies were consolidated into a "Bias for Action" approach and are now being implemented. These savings are reflected in the FY 1987 request.

In FY 1985, two additional projects were initiated. The National Information Requirements Project (NIRP) defined and greatly reduced minimum recurrent data reporting requirements on field units. Pilot studies were implemented at four administrative units of the Forest Service to increase productivity through waivers from requirements and increased delegations of authority.

#### Summary of Receipts

	FY 1985 Actual (Do	FY 1986 Estimate llars in thous	FY 1986 Estimate with DCA Reduction ands)	FY 1987 Estimate
National Forest Fund:				
Power Minerals Land uses Timber Grazing Recreation, admission, and user fees	\$ 649 14,998 2,869 498,547 7,747 30,826	\$ 750 20,000 3,400 802,548 <u>1</u> 7,747 33,700	\$ 750 19,000 3,400 / 802,548 7,747 30,826	\$ 900 19,000 4,300 715,700 7,747 52,000 2/
Subtotal, National Forest Fund receipts	555,636	868,145	864,271	799,647
National Grasslands and Utilization:				
Minerals Grazing Other	62,524 1,292 439	40,000 1,292 525	40,000 1,292 525	48,000 1,292 525
Subtotal, National Grasslands receipts .	64,255	41,817	41,817	49,817
Timber sale area betterment (K-V) Timber purchaser road credit	186,107 (107,949)	150,000 (174,000)	150,000 (174,000)	160,000 (170,000)
Subtotal, amount subject to payments to states and counties	(913,947)	(1,233,962)	(1,230,088)	(1,179,464)
Subtotal, receipts	805,998	1,059,962	1,056,088	1,009,464
Brush disposal Timber salvage sales Cooperative contributions All other	53,734 15,232 39,878 11,470	64,000 25,000 38,991 16,000	64,000 25,000 38,991 16,000	64,000 27,000 42,600 16,300
Total Forest Service receipts	926,312	1,203,953	1,200,079	1,159,364
Mineral leases and power licenses on public domain lands Oregon and California Grant Lands	3/ 82,421 4/ 16,056	95,600 22,000	95,600 22,000	101,600 24,000
Total revenues generated from lands managed by the Forest Service	\$1,024,789	\$ 1,321,553	\$1,317,679	\$1,284,964

<sup>1/</sup> Assumes buyback of \$159,548,000 in FY 1986. 
2/ Assumes increased receipts of \$16,000,000 from proposed legislation in FY 1987. 
3/ Represents noncash estimated receipts from NFS lands deposited directly to USDI. 
4/ Represents Forest Service receipts transferred to USDI for special O&C account.

#### Three-Year Summary of Appropriations

Forest Bossoush	FY 1985 Actual	FY 1986 Approp. Enacted to Date (Dollars in	FY 1986 Estimate with DCA Reduction 3/ thousands)	FY 1987 Estimate
Forest Research: Regular research appropriation Special projects, competitive grants Subtotal, Forest Research	\$ 113,826 (7,840) 113,826	\$ 118,726 6,799 125,525	\$ 113,620 6,507 120,127	\$ 111,481  111,481
State and Private Forestry	58,292	57,638	55,160	24,871
National Forest System	1,111,548	1,078,301 2	/ 1,031,934	894,488
Construction	37,579	222,522	212,954	195,197
Use of Timber Purchaser Road Credits	226,290 1	<u> </u>		
Program Level, Construction	263,869	222,522	212,954	195,197
Land Acquisition	50,535	28,130	26,920	3,206
Acquisition of lands for National Forests, special acts	706	777	744	966
Acquisition of lands to complete land exchanges	42	20	19	895
Miscellaneous trust fund	35	89	85	90
Range betterment fund	3,966	3,798	3,635	3,800
Operation and maintenance of recreation facilities				52,000
Youth Conservation Corps	(3,234)	(3,380)	(3,235)	
Permanent Appropriations, Working Funds: Expenses, Brush disposal Licensee programs:	53,734	48,026	45,960	47,835
Smokey Bear and Woodsy Owl Restoration of forest lands and	74	100	96	100
improvements	172	100	96	100
the Forest Service	33,898 15,232	22,911 24,000	21,926 22,968	15,434 20,713
Tongass timber supply fund	49,970	51,802	49,573	45,815
Operation and Maintenance of quarters	4,854	5,100	4,881	5,400
Subtotal, Working Funds	157,934	152,039	145,500	135,397
Permanent Appropriations, Payment to State Payment to Minnesota	es: 716	716	685	716
Grasslands	10,047	14,661	14,031	5,600 <u>4/</u>
Payments to States, NFF	224,937	212,241	203,114	78,574 <u>4</u> /
Subtotal, Payments to States	235,700	227,618	217,830	84,890
Total, Permanent Appropriations	393,634	379,657	363,330	220,287
<sup>™</sup> •ust Funds	234,625	155,091	149,898	197,616
Reforestation Trust Fund	37,405	(30,000)	(28,710)	30,000
TOTAL, FOREST SERVICE	\$2,268,483	\$2,051,548	\$1,964,806	\$1,734,897

<sup>1/</sup> In the FY 1985 Appropriation Act (P.L. 98-473), Congress directed that \$226,290,000 be transferred from unused funds for timber purchaser road credits, previously

sharing to a net receipts basis.

Includes \$30,000,000 transferred from Reforestation Trust Fund (P.L. 99-190). The Deficit Control Act reductions in Acquisition of of Lands to Complete Land Exchanges; Range Betterment Fund; Permanent Appropriations; Trust Funds; and Reforestation Trust Fund are reductions in planned obligations, since budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.
Legislation proposed to change payments to States and counties from gross receipts





## **Forest Research**

Fire and atmos-	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 <u>Base</u> in thous		Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
pheric sciences research \$ FTE	7,963 170	8,063 171	7,716	8,063 171	7,546 162	-517 -9	-517 -9
Forest insect and disease research \$ FTE	21,147 406	21,093 406	20,186	21,093 406	20,178 389	-915 -17	-915 -17
Forest inventory and analysis \$	17,133 348	17,049 348	16,316	17,049 348	14,222 315	-2,827 -33	-2,827 -33
Renewable resources economics							
research \$	4,513 99	4,566 99	4,370	<b>4,5</b> 66 99	4,456 98	-110 -1	-110 -1
Trees and timber management research \$	22,161 512	22,468 517	21,501	22,468 517	21,339 500	-1,129 -17	-1,129 -17
Watershed management rehabilitation research \$	11,229 238	15,517 243	14,850	15,517 243	14,858 236		-659 -7
Wildlife, range, & fish habitat research \$	9,108	9,480	9,072	9,480	9,291	-189	-189
FTE	191	195		195	193	-2	-2
Forest recreation research \$	2,084 41	2,141 41	2,049	2,141 41	2,077 40	-64 -1	-64 -1
Forest products and harvesting research \$ FTE	18,488 396	18,349 396	17,560	18,349 396	17,514 380	-835 -16	
Subtotal \$	113,826	118,726	113,620	118,726	111,481	-7,245	-7,245
Special projects, competitive grants \$	(7,840) <u>1</u>	/ 6,799 	<u>2</u> / 6,507	6,799	::	-6,799 	-6,799 
TOTAL\$	113,826 2,401	125,525 2,416	120,127	125,525 2,416	111,481 2,313	-14,044 -103	

These funds have been transferred to the account of the Competitive Research Grants Office, in Science and Education, Department of Agriculture, which administers the competitive research grants program.
These funds will be allocated directly to the account of the Competitive Research Grants Office, in Science and Education, Department of Agriculture, which administers the competitive research grants program.

#### Appropriation Summary Statement

#### Research Mission

The mission of Forest Service research is to develop knowledge and technology that increase economic and environmental values on America's 1.6 billion acres of forest and related rangelands.

A review of the United States long term renewable resources situation shows a growing gap between the supply of forest, range, and water products, and the quantities that people would like to consume at current prices.

Through scientific management of its forests and rangelands, however, the U.S. is capable of producing three times as much forage and twice as much timber as it currently does, while maintaining land productivity and protecting environmental quality.

To help achieve these goals, Forest Service research:

- Develops the scientific and technical knowledge needed to manage public land, about one-third of the Nation's lands, for all its resources.
- Provides scientific information for people involved with natural resource policy issues.
- Addresses short and long term problems in basic and applied research not dealt with by the private sector.
- Provides information and guidance for private forest landowners, industry and commerce, State agencies and commissions, and individual citizens.
- Supports international forestry through cooperation with other U.S. agencies, United Nations agencies, and foreign countries.

#### Research Administration

Forest Service research is carried out through a network of eight Forest and Range Experiment Stations and the Forest Products Laboratory at Madison, Wisconsin. There are about 200 Research Work Units at 75 locations throughout the United States, Puerto Rico, and the Pacific Trust Islands.

The Forest Service Deputy Chief for Research directs the research program, with support from seven Washington Office technical Staff Directors and Directors of the Forest Experiment Stations and the Forest Products Laboratory. The 790 scientists in the program (about half with doctoral degrees) produce more than 2,300 scientific publications annually.

#### Forest and Range Experiment Stations, Forest Products Laboratory



Research Coordination

Many Forest Service field headquarters and laboratories are located on or near university or college campuses. In addition to the Competitive Grants program, about 7 percent of the Forest Service research budget supports research at colleges, universities, other research organizations, and industry.

The proximity and support of extramural research complements Agency programs, fosters strong coordination among research organizations, and frequently helps achieve goals without increasing the Federal work force. While results from privately financed research belong to the sponsors, results from Forest Service research are made public to serve a broad clientele.

Research Planning

Forest Service research planning follows the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) and Title XIV of the Food and Agriculture Act of 1981.

The Forest Service plans long term research in conjunction with the Nation's forestry schools. While national laboratories do some research, most is done at the regional level, close to specific forest and rangeland problems.

Forest Service research aims at high priority technology needs in four geographical planning regions (Northeast, North Central, Southern, and Western) and the Forest Products Laboratory. Scientific research goals for each region are formulated by groups of research and resource managers in the Forest Service, the Cooperative State Research Service, forest industries, forestry schools, and agricultural experiment stations. National research programs result from analyzing and aggregating regional plans and considering annual program budget submissions by the Experiment Stations and the Forest Products Laboratory.

The Forest Service maintains timeliness and focus of research through periodic review, evaluation, revision, and/or termination of research work plans at 5-year intervals. Washington Office and field supervisors, with invited outside participants, also conduct intermediate reviews of research. These reviews are often used to redirect programs, within funding constraints, to emphasize new areas of scientific inquiry in response to changing national and regional priorities.

# Criteria for Program Changes The following criteria guide research program changes:

- Relation to the mission and goals of the Administration, Department of Agriculture, and Forest Service.
- Importance and timeliness of research problems, e.g. what difference will research make if it is successful?
- Research impact, e.g. who will the research affect and in what ways?
  - Availability of adequate personnel, funding, and leadership.
- Research status, e.g. is research nearing completion? Can it be delayed?
- Research that is long term and higher risk, requiring coordinated planning, continuity, and a stable research environment.
- Research serving critical consumer needs (such as lumber standards and fire safety).
- Research not done by organizations with a shorter term perspective and narrower geographic focus.

FY 1987 Program Changes
Since FY 1981, the Forest Service has taken several actions to reduce costs by streamlining its research organization. For example, by the end of FY 1986 the Forest Service will have closed 9 research locations, terminated 40 Research Work Units, and reduced personnel since FY 1981 by about 200 full-time equivalents.

Support services for Forest Service research programs have been merged with National Forest regional offices at Portland, OR; Ogden, UT; San Francisco, CA; and in Alaska; and with National Forests at Fort Collins, CO and Asheville, NC. Opportunities for further mergers of support services are being studied.

The proposal for forest research in FY 1987 is 11.2 percent less than the FY 1987 base. This decrease continues to reflect initiatives to improve efficiency by streamlining the Forest Service research organization and directing research toward the highest priority problems, while maintaining a minimum research capability in all essential program areas. Actions in FY 1987 include:

- Reducing work force by 103 full-time equivalents, including 45- 55 scientist-years of effort.
- Reducing atmospheric deposition research from \$11,238,000 to \$8,505,000.

- Reducing Forest Inventory and Analysis Research by \$2,827,000, including \$2,000,000 in the National Vegetation Survey.
- Reducing Trees and Timber Management Research by \$1,129,000, Forest Insect and Disease Research by \$915,000, (including \$106,000 for atmospheric deposition research already noted above), and Forest Products and Harvesting Research by \$835,000.
  - Terminating the competitive forestry research grants program.
- Combining units or support staff to reduce costs, directing research toward the highest priority problems, and accelerating close-out of nearly completed work.
- Terminating seven Research Work Units and closing four research laboratories as follows:

Research Work Units	Work Performed
Fairbanks, Alaska Pacific Northwest - 4351	Reforestation research in interior Alaska.
Gainesville, Florida Southeastern - 4107	Genetic improvement of longleaf and slash pines.
Sewanee, Tennessee Southern - 4102	Hardwood silviculture on the Cumberland plateau and highland rim.
Parsons, West Virginia Northeastern - 4351	Effects of atmospheric deposition on watersheds and effects of timber harvesting and road construction on water quality in the central Appalachians.
University Park, Pennsylvania Northeastern - 4351	Effects of atmospheric deposition on Appalachian forest watersheds and municipal watershed management.
St. Paul, Minnesota North Central - 4901	Research on river recreation management.
Athens, Georgia Southeastern - 4703	Development of veneer-faced flake- board panels and lumber (Com-ply).
Research Laboratories	
Fairbanks, Alaska	Reforestation research in interior Alaska; water quality research.
University Park, Pennsylvania	Effects of atmospheric deposition on Appalachian watersheds and municipal watershed management.
Parsons, West Virginia	Regeneration guidelines for central Appalachian hardwoods; water protection in the central Appalachians.
Sewanee, Tennessee	Hardwood silviculture research on the Cumberland plateau and highland plain.

Planned FY 1987 actions and their impacts are described in more detail under the appropriate budget activity.

International Forestry

The Forest Service coordinates with other Federal agencies, countries, and international organizations in (1) forest products trade research, (2) cooperative research and technical exchange activities, and (3) technical assistance.

These international forestry activities are summarized in the table and narrative below.

	Source	Actual	Estimated	Estimated
	of	FY 1985	FY 1986	FY 1987
	Funds	(Doll)	ars in thou	sands)
Forest products trade research (marketing, insects and disease, and forest products	FS	\$ 535	\$ 535	\$ 500
Cooperative research/ technical exchange (bilateral)	FS	750	880	1,015
	Reimbursed*	185	195	205
Technical assistance to developing countries, including training (through AID, Peace Corps, State Dept., FAO, etc.)	FS		750	650
	Reimbursed*	900	1,240	1,260
Total		\$ 2,370	\$ 3,600	\$ 3,630

- \* Reimbursed by AID; the Office of International Cooperation and Development, U.S.D.A.: and other organizations.
- Research on international trade in forest products aims at transforming the U.S. into a net exporter of forest products, thereby achieving a more favorable overall balance of trade. This research will help gain a better understanding of market operations and interactions, find ways to detect and treat insects and diseases that hamper exports or infest domestic resources, and help modify forest products to enhance their competitiveness in foreign markets. This research also helps assess the domestic timber supply and demand situation by analyzing trends in U.S. import and export of forest products.
- Cooperative research with scientists in other countries directly benefits the U.S. Examples include tropical forestry with Caribbean and Latin American countries, watershed management with Pacific rim nations, and research on forest ecosystems, including wildlife, soils, and nutrient cycling coordinated through the International Union of Forestry Research Organizations (IUFRO) and the Man and the Biosphere Program (MAB).

In FY 1985, cooperative research was undertaken with 6 countries on 25 projects, and 15 scientific exchanges took place with 6 countries. Examples of recent scientific and technical exchanges include:

- Atmospheric deposition research with the Federal Republic of Germany.
- Forest tree improvement and germ plasm exchange with the Soviet Union.
- Research on the natural enemies of the gypsy moth with the People's Republic of China.
  - Research on remote sensing of forest conditions with France.
- Development of fire control methods with Italy, France, Spain, and Australia.
- Improved forest inventory methods with several Scandinavian countries.
  - Improved timber utilization and insect control with Canada.
- Technical assistance in forestry is provided to developing countries, on a reimbursable basis, through the U.S. Agency for International Development (AID) by the Forest Service's Forestry Support Program, and through the Food and Agriculture Organization of the United Nations (FAO). This includes: technical advice to regional and field personnel in Africa, Asia, and Latin America; identification of experts for overseas assignments in about 24 countries each year; training of professionals from recipient countries in forest administration, watershed management, and agroforestry; forest products market development in Ecuador and neighboring countries; and dissemination of manuals and technical material throughout the world.

Specialized advice and equipment are provided to AID's Office of Foreign Disaster Assistance in response to major forest fires, earthquakes, or other overseas emergencies. Support to the Peace Corps includes technical information, and assistance in recruitment and training.

In FY 1985, the Forest Service developed a program for tropical forestry in Latin America and the Caribbean. This program guides future management, research, and extension activities within the Caribbean region.

- Domestic Research with International Applications. In addition to the international research and assistance activities described above, considerable Forest Service domestic research has international applications. For example:
- Much of the research done at the Forest Products Laboratory in Madison, Wisconsin is adapted for use in other countries, and each year the laboratory is host to international scientists for training and joint studies.
- A major part of the research at the Institute of Tropical Forestry, in Puerto Rico, has application in the Caribbean, elsewhere in Latin America, and in some parts of Africa and Asia.
- Much of the research on timber management, watershed management, and forest insects and disease at the Institute of Pacific Islands Forestry, in Hawaii, has application beyond the United States and its Pacific Islands.

Atmospheric Deposition Research

The FY 1987 proposal for the Forest Service includes \$8,505,000 for atmospheric deposition research, compared to \$11,238,000 in the FY 1986 appropriation. Over two-thirds of the reduction is from the reduction of the National Vegetation Survey.

Funding at the proposed level will allow continuation of high priority atmospheric deposition research such as monitoring trends in water quality, studying effects on major forest ecosystems, and studying watershed processes that influence effects of atmospheric deposition on terrestrial and aquatic ecosystems.

Forest Service atmospheric deposition research determines how atmospheric deposition (such as acid rain) affects forest resources. This information is needed to establish appropriate air-pollutant emissions policies.

The Department of Agriculture participates with the Environmental Protection Agency, the Department of the Interior, the Department of Energy, and the Department of Commerce's National Oceanic and Atmospheric Administration in the National Acid Precipitation Assessment Program (NAPAP). The Forest Service represents USDA as the leader of the NAPAP task group on terrestrial effects, carries out research as part of the NAPAP aquatic effects task group, and operates wet deposition (acidic precipitation) monitoring stations in support of the NAPAP deposition task group. Through this program, scientists study the effects of atmospheric deposition on watersheds and forest vegetation throughout the eastern United States, the Rocky Mountains, California, and the Pacific Northwest. In addition to Forest Service appropriations, EPA provides additional funds to support this program.

The chart and following discussion compare distribution of atmospheric deposition funding among major program components in FY 1986 and FY 1987.

Forest Service Atmospheric Deposition Research

#### FY 1986-87 Program Distribution FY 1986 Appropriation FY 1987 Estimate \$8.505.000 \$11,238,000 National Vegetation survey Forest response Forest response 19% research research cooperatives cooperatives 66% 50% Watershed National influences vegetation 14% survey Watershed Effects on Effects on influences specific specific 14% ecosystems ecosystems

- Forest response research cooperatives. Research determines the effects of atmospheric deposition on four major forest types (eastern spruce-fir, southern pines, eastern hardwoods, and western conifers). This program is implemented jointly with the U.S. Environmental Protection Agency (EPA) as part of NAPAP. The proposed FY 1987 funding of \$5,617,000 is the same as in FY 1986.
- National vegetation survey. The goal of the survey is to determine the extent and location of forest conditions that may be related to atmospheric deposition.

A program level of \$154,000 is included in the FY 1987 proposal for the Forest Service, compared to \$2,154,000 in the FY 1986 appropriation. The survey research in FY 1985 and FY 1986 will yield research results on measurement methods and survey designs, as well as limited pilot studies. The proposed funding in FY 1987 will enable an orderly summarization of the existing knowledge and data developed during those first two years of the survey.

Because of the early stage of research on the effects of atmospheric deposition and associated forest response, there is insufficient knowledge at this time to identify which variables to measure in an operational survey. Therefore, the operational survey is being postponed until such knowledge is available.

- Effects on specific ecosystems. Studies will focus on the effects of atmospheric deposition on central and southern California forests, high elevation Rocky Mountain ecosystems, Pacific Northwest commercial forests, northeastern hardwood and mixed forests, and midwestern mixed forests.

Funding of \$1,518,000 is in the FY 1987 proposal, compared to \$1,891,000 in the FY 1986 appropriation. The reduction represents termination of low priority research, termination of research investigations that have produced significant research findings but have come to convenient points for termination, and delayed initiation of new areas of research investigation.

At this program level, high priority studies will be continued in all regions, though at a reduced rate in California, the Rocky Mountains, and the Midwest.

- <u>Watershed influences</u>. The goal of these studies is to determine how atmospheric deposition affects forested watersheds to change water quality and forest conditions. The studies are carried out under the different regional conditions in New England, central Pennsylvania, the central Appalachians, the northern Great Lake States, and the southern Appalachians.

The proposed FY 1987 program level is \$1,216,000, compared to \$1,576,000 in the FY 1986 appropriation. The reduction represents termination of low priority research, termination of research investigations that have produced significant research findings but have come to convenient points for termination, and delayed initiation of new areas of research investigation.

High priority research will be continued at all locations, though at a reduced level in central Pennsylvania, the central Appalachians, and the northern Great Lake States.

Some recent findings from Forest Service field research on atmospheric deposition include:

- A variety of natural and human-caused disturbances affect the acidity of some New England ponds. These disturbances--such as beavers, fires, and dams--may have a more dramatic effect than atmospheric deposition. In some cases it may be impossible to isolate the effects of atmospheric deposition from the other disturbances.
- In northern Minnesota, Wisconsin, and Michigan, several clearwater lakes have different risks of acidification. Researchers developed a model to estimate the percentage of lakes that would become acidified (or de-acidified) under different deposition scenarios.
- Sulfate concentration is increasing in streamwater in the southern Appalachians. This may signal the beginning of a delayed response of the watersheds to atmospheric deposition.
- In the mountains east of Los Angeles, nitrate deposition in chaparral ecosystems was recorded at record-high levels following smog episodes. This appears to be the result of dry deposits of atmospheric pollution. Nitrate contamination of ground water in the area may be linked to the high levels of nitrate in atmospheric deposition.
- Red spruce in the Northeast and several species of pine in the Southeast are growing more slowly than expected. Atmospheric deposition may be one of several causes.

#### **Authorities**

- P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703. Erect, alter, and repair buildings necessary to carry out authorized work.
- P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended; (16 U.S.C. 1601). Directs the Forest Service to periodically prepare a long-term renewable resource assessment and program.
- P.L. 95-113, Food and Agriculture Act of 1977 (Title XIV), as amended December 22, 1981 (7 U.S.C. 1281 note and 7 U.S.C. 3221, 3291).

  Provides for increased cooperation and coordination in the performance of agricultural research by Federal departments and agencies, the States, State agricultural experiment stations, colleges and universities, and other user groups (7 U.S.C. 1281).

Authorizes the Secretary of Agriculture to engage in international agricultural research and extension, including to "assist the Agency for International Development with agricultural research and extension programs in developing countries." Designates USDA as the lead agency of the Federal Government for agricultural research, extension, and teaching. Eliminates restrictions on use of cooperative agreements with universities, and permits costreimbursable agreements with State cooperating institutions without competition.

- P.L. 95-307, Forest and Rangeland Renewable Resources Research Act, June 30, 1978 (16 U.S.C. 1641 et. seq., Sections 1-7).

  Updates, clarifies, and consolidates forest and range research authorities; provides a specific forest and rangeland link to Title XIV of the 1977 Farm Bill, the National Forest Management Act of 1978 (NFMA), and the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA); authorizes competitive grants; expands authority for foreign research cooperation.

  Such sums as are necessary; no expiration date.
- P.L. 95-495, Act of October 21, 1978 (92 Stat. 1649). Section 6(d). Establishes Boundary Waters Canoe Area Wilderness and Boundary Waters Canoe Area Mining Protection Area.

  Authorization: \$8,000,000 for resource management on the Superior National Forest; expires September 30, 1990.

#### Fire and Atmospheric Sciences Research

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Fire and atmospheric						
sciences research \$ FTE	7,963 170	8,063 171	7,716	8,063 171	7,546 162	-517 <b>-</b> 9

#### Objective

To develop improved methods of preventing and controlling wildfires; reducing losses of forest resources caused by wind and weather; using prescribed fire to achieve forest and range objectives at low cost; and reducing loss of life, property, and forest resources from fire.

# Program description

About 250,000 wildfires burn an area of almost 5 million acres of forest, brush, and grasslands each year in the United States. Combined Federal and State fire protection services cost over a half-billion dollars annually, and losses approach \$2 billion.

Forest Service scientists provide fire management agencies--Federal, State, and local--with the knowledge and scientific tools for safe and efficient fire control at lower cost. Firefighting is expensive, and researchers are developing methods to balance protection costs against potential damages and to help managers analyze alternatives.

Managed fire, however, can produce benefits, such as better timber crops, improved wildlife habitat, and control of undesirable vegetation. Research has a major role in prescribed fire management by improving benefits and by reducing fire losses and control costs.

Investigators are developing guidelines to determine the effects of prescribed fire and to help managers meet air quality standards and smoke management requirements, so that prescribed fire may be used instead of herbicides, mechanical equipment, and hand labor in manipulating forest vegetation.

Examples of recent accomplishments follow:

- Design of fire weather networks. In the past, site selection for fire weather stations was limited to locations where an observer was available. With the advent of remote automatic weather stations (RAWS), fire weather measurements could be taken wherever and as often as needed and transmitted via satellite--without manual intervention. However, no accepted method existed for designing fire weather networks.

Research at the Pacific Southwest Station has yielded a means of determining the number and locations of fire weather stations appropriate for a given management prescription. The manager's need for weather information is translated into quantitative criteria that a computer uses to select optimum locations for weather stations. The method was used to devise a fire weather network plan for southern California, where weather analysis is complicated by mountainous terrain and by the interplay between land and sea. Computer models were used to represent fire weather problems induced by Santa Ana and heat wave conditions, such as those that ravaged southern California in the summer of 1985. The design process takes existing weather stations into account, avoiding the unwanted duplication of data. This design method is being considered further for planning hydrologic networks and meteorological experiments.

- VCRs and computers for studying fire behavior. Forest fires change rapidly, hampering studies of their behavior and effects. A single fire may burn with great intensity in some places and less intense in other places. By the time observers figure out precisely what the fire is doing, it is doing something else. Fire researchers at the Southeastern Station have put together a system using video cassette recorders and computers that record and analyze fire much more quickly than with conventional movie cameras. Data and analyses that once took a week or more to obtain now takes a matter of minutes. The system was developed primarily for research purposes, but it holds much promise for fire management.



Video cassette recorders and computers are used to record and analyze fire behavior through time and space.

- Law enforcement reduces arson wildfires. Law enforcement is used to prevent and reduce violations of wildfire laws, thereby protecting human life and forest resources. Scientists at the North Central Station have shown quantitatively, for the first time, that law enforcement reduces arson wildfires.

Scientists found that arson fires in the East decreased as the number of prosecutions, convictions, and settlements increased. They showed that a minimum amount of law enforcement effort greatly reduced the number of arson wildfires, but that additional enforcement yielded a smaller reduction. Researchers concluded that States already vigorously enforcing laws against arsonists would probably realize only a small reduction in arson fires in response to increased enforcement efforts. On the other hand, States with little or no law enforcement may initially realize a large reduction in arson fires by increasing their efforts.

Researchers plan to incorporate cost and value criteria, along with the recently developed law enforcement information, to allow managers to determine the economically efficient level of arson law enforcement. Results of this recently published research are applicable throughout most of the eastern part of the country.

Decr	ease
for	1987

	1987	1987	
	Base	Estimate	Decrease
	(Do1	lars in thousa	nds)
re and atmospheric			

sciences research ... \$ 8,063 7,546 -517 FTE 171 162 -9

A decrease of \$517,000 is proposed from the 1987 base.

This funding level will allow research to be concentrated on high priority problems and accelerate close out of nearly completed research. The following actions are anticipated:

- Terminating fire ecology research in interior Alaska (as part of closure of Forestry Sciences Laboratory, Fairbanks, AK). This will allow concentration of research on higher priority fire research problems in the Pacific Northwest.
- Decreasing and delaying atmospheric deposition research on high elevation ecosystems in the West (Fort Collins, CO). Research will be concentrated on determining effects of atmospheric deposition on air quality of Class I Wilderness ecosystems.
- Decreasing research on the relationship between prescribed burning and timber management of Southwestern conifers (Flagstaff, AZ).

Salaries and benefits	-313 -9 -18 -2 -19 -29 -127
Total	-517

### Forest Insect and Disease Research

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest insect and disease						
research\$	21,147	21,093	20,186	21,093	20,178	-915
FTE	406	406		406	389	-17

### **Objective**

To develop technology which prevents or reduces forest and rangeland damage by insect and disease pests, and which protects wood in use and in storage from insects and decay.

## Program description

The program provides the means to:

- Define, assess, and predict the economic, social, and environmental effects of destructive insects and disease pests on forest resources and on wood in storage and in use.
- Detect, assess, and predict changes and trends in the distribution and abundance of pests.
- Reduce pest populations and damage to acceptable levels through control techniques and management strategies that are ecologically sound, economical, and environmentally safe.

The research covers bark beetles, leaf-eating insects, cone and seed pests, wood products pests, root rots, rust and canker diseases, diebacks and declines, and stress caused by air pollution, including acid rain.

Results are used to develop environmentally safe and effective strategies for pest management based upon biological, chemical, silvicultural, and other controls.

Emphasis is on early detection of insects and diseases, and preventing outbreaks.

Examples of recent accomplishments follow:

- Highlights in integrated pest management (IPM) research accomplishments. The IPM research, development, and applications program for bark beetles and southern pines has completed a series of summary publications that present information of interest to researchers, pest management specialists, and foresters. Additional information is available in the form of a slide tape and a series of one-page fact sheets.
- Protecting white pine seed. Production of disease-resistant seed in western white pine seed orchards has been severely reduced because of periodic infestations of pine cone beetles, coneworms, and cone moths. Research in Idaho evaluated single and multiple applications of two insecticides--permethrin and fenvalerate--to protect cones of blister rust-resistant western white pine. Concurrently, techniques were developed to monitor these pests to project damage and to time insecticide treatments. The goal of this research is to develop pest management techniques that reduce or eliminate use of pesticides, yet optimize production of valuable white pine seed, which is worth about \$2,000 per pound.

- Commercial crop of rust-resistant seeds. Owners of small forest tracts in Georgia soon will be able to plant Toblolly and slash pine seedlings that are resistant to fusiform rust. That disease has decimated young pine plantations in central and southern Georgia and Alabama, killing or deforming almost all the trees in some plantings. The resistant seedlings are the results of a cooperative effort by the Georgia Forestry Commission and researchers at the Forest Service's Southeastern Station. The Forestry Commission provided the land and the labor, and the Station provided the expertise in pathology and genetics needed to establish a rust-resistant seed orchard.

Preliminary tests show that use of the resistant seedlings will reduce rust incidence by 40 percent in loblolly and 50 percent in slash pine, the best produced to date in an orchard of commercial scale. The Georgia Forestry Commission is sharing the genetic material with forest industries, which are trying to improve the resistance of material produced in their seed orchards.



Preliminary tests show that use of fusiform rust-resistant seedlings will reduce rust incidence by 40 percent in loblolly and 50 percent in slash pine.

#### Decrease for 1987

Fο

	Base Doll	1987 Estimate Lars in thousar	Decrease nds)
Forest insect and disease research \$	21,093	20,178	<b>-</b> 915

406

389

-17

A decrease of \$915,000 is proposed from the 1987 base.

FTE

Funding at this level will concentrate research on high priority problems such as research on gypsy moth, biotechnology, pest impact assessment, and accelerate close out of nearly completed research. Planned actions include:

- Terminating research on spruce budworm and its natural enemies in northeastern spruce-fir forests (Orono, ME).
- Terminating research on developing safe and inexpensive treatments against subterranean termites (Madison, WI).
- Terminating research on brown spot needle blight on longleaf pine (Gulfport, MS).
- Reducing research on insect pests of young forest stands (Berkeley,  $\operatorname{CA}$ ).
- Reducing research on bark beetles of high value conifers (Berkeley, CA).
- Reducing research on root rots of northern Rocky Mountain conifers (Moscow, ID).
- Reducing research on diseases and insects of high value hardwoods (Carbondale, IL).
- Reducing research on effects of atmospheric deposition on eastern trees (Delaware, OH).
- $\,$  Reducing research on fusiform rust of southern pines (Gulfport, MS).
- Reducing research on biological methods to protect wood from decay (Madison, WI).

Salaries and benefits	-608
Travel	-15
Rent, communications, and utilities	-25
Printing and reproduction	-3
Supplies, materials, and equipment	-28
Other contractual services	-44
Grants, subsidies, and contributions	-192
Total	-915

Exhibit 1

### Forest Insect and Disease Research

Pest or problem	<u>1987 Base</u>	1987 Estimate (Dollars in thousands)	Inc.(+) or Dec.(-) from 1987 Base
Dwarf mistletoe, tree decay, and other important pests	\$ 3,244	\$ 3,280	+36
Gypsy moth	2,896	2,896	
Regeneration pests	2,393	2,254	-139
Spruce budworms	1,846	1,623	-223
Protection of wood	1,554	1,434	-120
Fusiform rust	1,551	1,267	-284
Pests of high value areas, including diebacks and declines	1,376	1,340	-36
Biotechnology	1,270	1,270	
Mountain pine beetle and other bark beetles	1,073	1,015	-58
Root diseases	936	898	-38
Air pollution	930	818	-112
Southern pine beetle (IPM-SPB) $\frac{1}{2}$ /	756	815	+59
Mycorrhizae	755	755	
Douglas-fir tussock moth	513	513	
Total, Forest Service	\$21,093	\$20,178	-915

<sup>1/</sup> IPM-SPB represents the Research Development and Applications Program on Integrated Pest Management of Southern Pine Beetles.

### Forest Inventory and Analysis

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest inventory and	17 100	17.040	16 016	17.040	14 000	0.007
analysis\$ FTE	17,133 348	17,049 348	16,316	17,049 348	14,222 315	-2,827 -33

#### Objective

To provide comprehensive, continuing information, and analyses of forest land resources of the United States.

# Program description

Periodic inventories ascertain trends in extent, condition, and ownership of the Nation's forest resources. The data and analyses provide information about timber, wildlife habitat, forage production, and other resource characteristics needed for resource planning.

This research monitors the harvest and use of timber by the forest products industry. Research determines present and prospective national consumption of wood products by major end uses and relates these requirements to the national timber supply.

The forest industry, financial consultants, and State and Federal planners use these comprehensive analyses of forest resource supply and demand to support planning, management, and investment decisions. Where forest conditions and timber supplies change rapidly, frequent reinventories of forest resources are necessary to retain useful inventory data.

Regional and national research projects are developing efficient techniques in forest inventory and data analysis to maintain a cost-effective program.

Examples of recent accomplishments follow:

- Incidence and impact of damage to Georgia's timber, 1982. During the fifth inventory of Georgia's forest resources, Forest Service scientists gave special emphasis to the incidence and source of timber damage. A special report concluded that hardwoods had more damage than softwoods, and more small trees were damaged than were pole-size timber or larger sawtimber. The greatest value loss was in softwood sawtimber. The value of annual losses for softwood sawtimber in Georgia was \$96 million compared to \$41 million for hardwood sawtimber, even though more volume loss was estimated for hardwoods. In pole-sized timber, the \$28 million softwood loss was many times that of hardwoods. Diseases, insects, and weather were the most prevalent damaging disturbances.

This type of information is vital for a successful pest management program. By knowing the types of damage, the relative incidence, and the damaging agents involved, forest managers can design more effective and efficient controls.

- Speeding up forest inventories. State resource planners and forest-industry analysts depend on information from forest inventories in planning industrial development and resource management, but completion time for State forest surveys has increased due to rising costs. During the past 5 years, the average period between successive resource inventories stretched from 10 to 14 years nationwide, but funding levels in 1985 permitted restoration of the 10-year inventory cycle. The data collection phase of the Virginia inventory was accelerated from 20 months to 14 months, and similar reductions were achieved in Illinois and Indiana.

Nationwide, the area of forest land covered during FY 1985 increased 80 percent over FY 1984. New inventory statistics will soon be available for southeast Alaska, Arizona, Delaware, Louisiana, Maryland, New Jersey. New Mexico. western Oregon, and Texas.



Between FY 1980, and FY 1984, average period between successive inventories increased from 10 to 14 years nationwide. Funding increases in FY 1985 restored the 10-year cycle. The FY 1986 funding retained that 10-year cycle.

- Modeling changes in the acreage of forest land among ownerships and timber cover types in the Southeast. Competition among land uses has major implications for future timber supplies. Much of the pine timber being harvested now in the South, for example, comes from timber stands that naturally seeded on abandoned farmland. The distribution of forest land among the various ownership and forest cover type classes has similar implications for future timber supply and the effectiveness of public programs to stimulate timber-growing investments.

In a continuing effort to improve methods of projecting forest land acreages, Forest Service scientists have developed a land-area projection model based on proxies for the relative economic returns that accrue to different land uses. Combining that model with historical forest inventory and analysis data led to projections of a drop in forest land acreage of about 5 percent in the Southeast between now and the year 2030. The forest industry share of that forest land base is projected to increase, as is the miscellaneous private class. The forest acreage held by farmers is projected to drop from about 30 percent to less than 20 percent of the private forest acreage. The portion of forest land in planted pine stands is projected to increase from 15 to 25 percent of the private forest land, while hardwood types would remain about constant and natural pine stands would decline.

#### Decrease for 1987

	1987 Base (Dol	1987 Estimate lars in thousar	Decrease nds)
Forest inventory and analysis research \$	17,049	14,222	-2,827
	348	315	-33

A decrease of \$2,827,000 is proposed from the 1987 base.

This allows forest inventory and analysis research to continue, but with the following actions:

- Slowing forest inventories in all regions, lengthening the nationwide average reinventory cycle from the current 10 years to about 12 years.
- Terminating the National Vegetation Survey, which is part of the atmospheric deposition research program. Its purpose is to determine location, extent, and causal relationships of forest damage that may be related to atmospheric deposition.
- Terminating research on remote sensing applications in the nationwide forest inventory (Ft. Collins,  ${\tt CO}$ ).
- Reducing research on trends in consumption of wood products in the U.S. economy (Madison, WI).

Salaries and benefits	-984
Travel	<del>-</del> 79
Rent, communications, and utilities	<b>-</b> 157
Printing and reproduction	-22
Supplies, materials, and equipment	-181
Other contractual services	-266
Grants, subsidies, and contributions	-1,138
Total	-2,827

### Renewable Resources Economics Research

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Renewable resources						
economics research S	•	4,566 99	4,370	4,566 99	4,456 98	-110 -1

### Objective

To develop and apply methods for analyzing the responses of forest products markets to economic and institutional forces and for structuring economically efficient forest management activities.

# Program description

Research results contribute directly to National Forest management decisions and to the design of public and private forestry programs. Individual landowners and forest products processing firms also use the research to manage their resources efficiently. The program has four primary research topics:

- Determine the response of domestic and international forest products markets to economic and institutional forces. Research will help public and private policy makers achieve the full competitive advantage for the forest products industry.
- Design economically efficient management practices that improve timber productivity. Research will result in the design of timber management practices that are economically efficient and sufficiently flexible to respond to the uncertainties of future technology.
- Determine actual timber management responses to economic and institutional factors. A more complete understanding of what affects actual timber management will help forest managers design programs that capture the productive potential of the Nation's timber resource.
- Evaluate the economic efficiency of multiple use management actions on public and private lands.

Examples of recent accomplishments follow:

- Exchange rates influence softwood lumber trade. Researchers at the Pacific Northwest Station are studying the effects of the exchange rate on international trade in lumber. They have found that exchange rates are important in softwood lumber trade and must be considered when formulating trade policy. Previous studies indicate that (1) an increase in the value of domestic currency relative to the currencies of trading partners encourages imports and assists foreign producers, and (2) an increasing exchange rate helps explain the influx of Canadian softwood lumber into U.S. markets and indicates the relative competitive position of U.S. producers in the Japanese market.

A comparison of real prices shows that Canadian producers received higher prices than did U.S. producers between 1978 and 1981, resulting in an increase in the Canadian producers' share of the U.S. market. Exchange rates will partially determine the relative share of the Japanese market that the United States and Canada can expect to gain.

- What's a wild trout worth? Recreation associated with wildlife clearly has economic value. But how do you put a dollar value on experiences that aren't sold in the marketplace? How do such values stack up against stumpage values for timber? If land managers are to allocate scarce resources efficiently, they need the tools to answer questions such as these.

Forest Service scientists have completed studies on the economic value of hunting and fishing in Idaho. They estimated values per trip, per calendar day, and per wildlife and fish user day for many of the species and species groups sought by recreational hunters and anglers in Idaho. This effort involved the Idaho Department of Fish and Game, the USDI Bureau of Land Management and Fish Wildlife Service, the Army Corps of Engineers, and the Forest Service.

Dollar value estimates of hunters' and anglers' consumer surplus measure their willingness to pay for outdoor experiences over and above actual cash expenditures. Values per trip are highest for activities associated with the relatively rare mountain goat (\$360) and bighorn sheep (\$239), and lowest for generally available activities such as upland game hunting (\$35) and warm-water fishing (\$42). The size of consumer surplus values is related to the scarcity of the opportunity to hunt or fish for particular species and the expenditure needed to support the activity.



How do you value the experience of catching a big trout in the solitude of a remote mountain stream?

Decrease for 1987			1987 Estimate s in thousan	<u>Decrease</u> ds)
	Renewable resources economics research \$	4,566 99	4,456 98	-110 -1
	A decrease of \$110,000 is pro	posed from th	ne 1987 base.	
	Funding at this level will al priority problems, and acceleresearch.			
	Specific actions include reductions forest product markets in the			
Object class information	Salaries and benefits Travel	lities		-38 -3 -6 -8 -10 -45
	Total	• • • • • • • • • • • •		-110

### **Trees and Timber Management Research**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands		Inc.(+) or Dec.(-) from Base
Trees and timber management						
research\$		22,468	21,501	22,468	21,339	-1,129
FTE	512	517		517	500	-17

#### Objective

To develop improved silvicultural alternatives and management guidelines needed to increase the productivity and multiple use benefits of forest lands, maximize the growth and quality of trees, and maintain land productivity.

# Program description

More timber must be produced on fewer acres to meet expected demands. Achieve higher productivity from forest lands by developing economically, biologically, and environmentally sound forest management practices.

Timber management research ensures that the information and technology needed to achieve full productivity are developed and promptly made available.

The program focuses on development of cost effective and reliable management strategies to improve forest growth, quality, and composition; genetic improvement for superior tree growth, quality, and resistance to forest pests; and more accurate predictions of the growth and yield of forest stands.

Basic research is directed at understanding the physical, biological, and genetic factors that control the development of individual trees and forest stands.

Examples of recent accomplishments follow:

- Predicting loss from fusiform rust in southern pine plantations. Fusiform rust is the most destructive disease in southern pine plantations. The disease infects young plantations, causing galls to form on the branches and main stems of infected trees. Trees with stem galls often die, and those that survive usually are not as merchantable as noninfected trees.

To effectively manage rust-infected plantations, forest managers need an early assessment of the probable impact of the disease on future yields. Unfortunately, impact assessments are difficult because they depend upon complex interactions of site quality, the number of surviving trees per acre, the proportion of stems infected, plantation age, and prospective utilization.

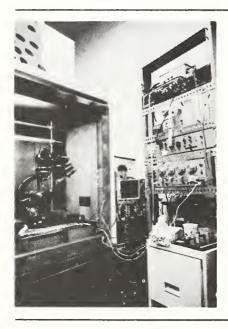
Forest Service scientists are solving this problem. They have developed mathematical models and computer programs which integrate the various factors affecting future yields in infected plantations and predict future yields. Yield predictions can also be combined with economic data, allowing the manager to make decisions that will minimize the economic impact of the disease.

A microcomputer version of the yield-prediction system is now available for unthinned slash pine plantations, and equivalent systems are being developed for loblolly pine and thinned plantations of both species.

- Transferring genes from bacteria into pines. Biotechnology is rapidly coming closer to reality and has significant potential in forestry. A major requirement for the development of forest biotechnology is a way to introduce foreign genes into commercially important tree species.

A method for gene transfer has been developed by scientists of the Pacific Southwest Station, North Carolina State University, and Oregon State University, who have succeeded in the transfer of genetic information from a common bacterium into loblolly pine, the Nation's most widely planted forest tree. This is the first demonstration of gene transfer and function in a forest tree, and makes possible the transfer of genes derived from other plants or created in the laboratory into commercial species.

The long term goal of these studies is genetic improvement of trees without the limitations of long breeding cycles. Biotechnology has the potential to create improved combinations of genes in a single year that could take hundreds of years by the traditional breeding process.



A forest biotechnology laboratory for direct transfer of genetic information into cultured cells of important forest trees. In this laboratory, microphobes are used to carry genes into conifer cells, thus bypassing the normal breeding process.

<sup>-</sup> Fifty years of research condensed for the field forester. For half a century researchers in the Great Lakes States have been learning how to manage northern hardwood forests. The job has been complex because so many different species of trees make up these forests.

Covering 10 million acres in the three Great Lakes States alone, most northern hardwood forests have been cutover at least once. Second-growth stands have reached pole-size, but many of them are slow growing and of poor quality.

To help these forests achieve their economic and ecologic potential, silviculturists at the North Central Station summarized their research on northern hardwoods and prepared clear, straightforward recommendations for the field forester. Covering all aspects of management, these Northern Hardwood Notes are offered for sale in loose-leaf form by the Superintendent of Documents. The collection will be supplemented and updated as new research results are obtained.

#### Decrease for 1987

	1987	1987	
	Base	Estimate	Decrease
	(Dol	lars in thousa	nds)
Trees and timber			
management research \$	22,468	21,339	-1,129
FTE	517	500	-17

A decrease of \$1,129,000 is proposed from the 1987 base.

Funding at this level will (1) concentrate research on the highest priority problems, such as impacts of environmental stress on tree growth and development, forest biotechnology, and forest stand growth and yield prediction systems; (2) accelerate close-out of nearly completed research; and (3) postpone start-up of new long-term and high risk research, such as genetic selection of forest trees for insect and disease resistance, development of natural regeneration methods for western conifers, and development of guides for the management of low quality hardwoods on nonindustrial forest lands. Specific actions include:

- Terminating reforestation research and closing the laboratory in interior Alaska (Fairbanks, AK).
- Terminating research on genetic improvement of longleaf and slash pines (Gainesville,  ${\sf FL}$ ).
- --Terminating hardwood silviculture research on the Cumberland Plateau and Highland Rim (Sewanee, TN), resulting in closure of the research laboratory.
- Reducing research on regeneration guidelines for central Appalachian hardwoods (Parsons, WV). This will facilitate relocation of the Research Work Unit to Morgantown, WV, and closure of the Timber and Watershed Laboratory at Parsons, WV.
- Reducing research on reforestation of Intermountain Douglas-fir and ponderosa pine (Boise, ID), and on Hawaiian koa and ohia (Honolulu, HI).

Salaries and benefits	-600
Travel	-26
Rent, communications, and utilities	-44
Supplies, materials, and equipment	-55
Other contractual services	-76
Grants, subsidies, and contributions	-328
Total	-1,129

## Watershed Management and Rehabilitation Research

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Watershed management and rehabilitation research \$	11,229 238	15,517 243	14,850	15,517 243	14,858 236	-659 -7

### Objective

To develop and test new cost effective technology and methods for rehabilitating lands disturbed by surface mining, and for protecting, managing, and improving forest and rangeland watersheds.

# Program description

This research develops new knowledge to help planners and managers meet long term water quality and flow needs, rehabilitate surface-mined lands, and determine the relationship of water quality and flow with alternative land uses.

Forests and rangelands in the contiguous 48 States yield about 1.3 billion acre-feet of water annually. Water flow and quality are improved on forest and rangelands primarily through management of other resources; thus, knowledge from related forest and rangeland research activities helps ensure that managed lands produce consistent flows of acceptable quality water.

To support surface mining activities, research is done to alleviate the impacts of surface mining on associated natural resource values and restore mined areas promptly to full productivity.

### The program:

- Develops methods to maintain or improve water quality and yield from forests and rangelands.
- Provides information to maintain soil stability and to stabilize eroded lands.
- Determines ways to conserve snow moisture and to improve vegetative growth and surface water supplies.
- Evaluates the cumulative effects of land management activities on water quality, yield, and stream channel stability.
- Determines the effects of chemicals, including atmospheric deposition, on forests and rangelands.
- Develops new technology to plan mining operations that protect surface and underground water supplies and restore long term productivity of mined lands.

Examples of recent accomplishments follow:

- Technique developed to evaluate off-site effects of logging on streams. Do timber harvest activities affect the physical structure of stream channels downstream from logging activity? Answers to this question are important in the steep forest lands of the Pacific Northwest because of the potential consequences for aquatic resources. Research has shown that timber harvest in this region can affect the timing, rate, and volume of water and sediment movement in streams, but determining the effect of such changes on the physical structure of streams has been difficult.

To address this problem, researchers at the Pacific Northwest Station developed a technique that uses information from aerial photographs to determine the linkage between channel conditions and upstream logging activity. This technique gives forest managers a rapid and inexpensive way to compare watersheds with different management treatments and to analyze changes in watershed conditions over time.

- Quantifying and neutralizing acid deposition. Acid deposition poses a potential threat to forests, lakes, and streams in North America. The chemicals associated with high acidity--sulfates and nitrates--occur naturally and as emissions from the burning of fossil fuels such as coal, gasoline, oil, and natural gas. Scientists at the North Central Experiment Station have developed a method for estimating how much sulfate and nitrate is natural in North American precipitation, and how much is from emissions. This is an important step in evaluating the environmental benefits of emission controls.

These scientists have found that emission-related sulfates and nitrates are linked to acidification of 5 to 10 percent of the clear-water lakes in northeast Wisconsin and upper Michigan. Also, they can now estimate the number of lakes that will be affected if emissions increase or decrease.

Forest Service watershed scientists at the Northeastern Station have identified the soil properties that control the acid neutralizing capacity of watersheds and have demonstrated that the ability of some soils to neutralize acids is very limited.

Various plants and animals can retain sulfate rather than letting it move out of the soil, causing soil acidification if unchecked. At the Southeastern Forest Experiment Station, scientists have shown that biological processes in watershed soils are important in delaying this soil acidification.

Changes in watershed soils not only affect streams and lakes but also adversely affect tree growth. A tree-ring study of red spruce has documented a recent decline in growth that corresponds to increased emissions during the past 20 years.

- Not all erosion is bad. Sometimes erosional processes are necessary before a landscape can be established. Research on the Alkali Creek watershed in western Colorado illustrates the point.

In the early 1960s, Rocky Mountain Station scientists started research on gully stabilization. Evaluations over the ensuing 20 years have shown that rehabilitation is more than a matter of damming gullies—it is a three-stage process. First, the steep, bare, high-sodium gully banks disintegrate. The check dams help prevent the sloughed soil material from being flushed down the channel. Next, weathering and leaching greatly reduce the sodium content of the accumulating soil in the channel bottom. Finally, when enough sodium has been leached from the eroded material, plant cover develops and stabilizes the channel.

Erosion of the steep, high-sodium banks and subsequent leaching of the sodium from the material deposited in the channel bottom are the key factors in stabilizing this kind of watershed. A perennial stream now flows from a formerly ephemeral gully, and suspended sediment has been reduced by 95 percent.



This high-sodium gully bank (left) had to disintegrate and most of the sodium had to be leached from the sloughed material before vegetation could stabilize the channel.



#### Decrease for 1987

1987 1987

Base Estimate Decrease (Dollars in thousands)

Watershed management and rehabilitation

A decrease of \$659,000 is proposed from the 1987 base.

Funding at this level will continue high priority research, including slope stability research in the West and water quality research in the East. Planned actions include:

- Maintaining high priority water quality research in Alaska, but closing the Fairbanks location and moving administration of high priority studies to Anchorage, AK.
- Reducing research on effects of atmospheric deposition on surface and ground water in southern California and on forests in California (Riverside, CA).
  - Reducing research on management of blowing snow (Laramie, WY).
- Reducing research on effects of atmospheric deposition on water in the Great Lake States (Grand Rapids, MN).
- Reducing research on effects of atmospheric deposition on watersheds and effects of timber harvesting and road construction on water quality in the central Appalachians. The laboratory at Parsons, WV will be closed, and administration of high priority studies moved to Morgantown, WV.
- Reducing research on effects of atmospheric deposition on Appalachian forest watersheds in Pennsylvania and closing the laboratory at University Park, PA. Administration of high priority studies will be moved to Morgantown, WV.
- Terminating research on municipal watersheds (University Park, PA) as part of closing the research location.

Salaries and benefits	-234
Travel	-21
Rent, communications, and utilities	-36
Supplies, materials, and equipment	-45
Other contractual services	-61
Grants, subsidies, and contributions	-262
Total	-659

### Wildlife, Range, and Fish Habitat Research

	1985 Actual	Approp. Enacted to Date	Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousand	1987 Estimate s)	Inc.(+) or Dec.(-) from Base
Wildlife, range, and fish habitat research\$	9,108	9,480	9,072	9,480	9,291	-189 -2

#### Objective

To develop knowledge and technology for maintaining or improving wildlife and fish habitat, improving range condition and productivity, improving soil stability and vegetative cover, and integrating wildlife, fish, and livestock with other forest and rangeland uses.

# Program description

To ensure diverse, well-distributed habitats, productive rangeland ecosystems, and protection and improvement of forage and related resources, managers must understand the complex relationships among habitat quality, growth and response of vegetation to defoliation, other land uses, and wildlife and fish populations.

Major research areas include anadromous fish, integrated management of riparian ecosystems, old growth forest wildlife habitat, multiple use rangeland management, improved varieties of range plants, and integrated management of livestock, wildlife, and fish with other resource uses and values.

#### The program:

- Provides information to meet legal and regulatory requirements.
- Determines habitat requirements of individual species, including endangered species, game species, and anadromous fish.
- Develops new concepts and methods for cost effective monitoring of wildlife populations.
- Develops new knowledge of ecological principles that apply to planning and management of wildlife, range, and fish habitat.
- Examines forage, habitat, livestock, wildlife, and fish responses to forest and rangeland succession and land management alternatives.
- Determines the effectiveness of livestock in management of vegetation, including undesirable vegetation and noxious weeds.
- Develops new plant materials and techniques to enhance forage production and wildlife and fish habitat.

Examples of recent accomplishments follow:

- Managing Intermountain rangelands. How can productivity of vast acreages of Intermountain rangelands be restored and maintained? Scientists, cattlemen, and politicians have been concerned about western rangelands at least since the 1930s. This concern led to a long term research effort by Intermountain Station scientists.

Their publications on salt-desert shrub rangelands and on the Benmore Experimental Range summarize the most important research findings accumulated for these areas over the past 40 to 50 years. These publications are part of a major technology transfer effort on management of Intermountain rangelands. Each includes alternative management practices applicable to western rangelands.

- White-Tailed Deer: Ecology and Management. The white-tailed deer has made a remarkable recovery since the 1950s. This success story is due, in part, to the information on deer management generated from research done at the Nacogdoches, Texas, laboratory of the Southern Forest Experiment Station. Scientists there have identified the physiological needs of deer and defined the habitat suitability of forest stands. Investigators measured the seasonal production and nutritional value of food in various types of forest stands, and passed this information on to other scientists and land managers.

A notable achievement in transferring information on white-tailed deer to land managers was publication of the book "White-Tailed Deer: Ecology and Management," published by the Wildlife Management Institute and edited by a Forest Service scientist. This book presents information on the biology and behavior of the white-tailed deer that has been assembled from more than 30 years of wildlife habitat research.



Prepared by 72 experts, the recently published book, "White-Tailed Deer: Ecology and Management," has been acknowledged as the definitive work on the white-tailed deer.

- New ways to improve habitat for an endangered species. The endangered Kirtland's warbler is restricted to a small breeding range within State and National Forests in northern Michigan. The population of this species is thought to be limited in part by the amount of suitable habitat available in Michigan. Recent research at the North Central Station has given State and Federal managers new information about Kirtland's warbler habitat requirements, the role of fire in managing the habitat, and population dynamics.

Kirtland's warblers are concentrated in a few large breeding areas, each of which provides suitable habitat for only 10 to 14 years. So habitat must be continually regenerated through timber harvesting and management.

In the past, suitable ground cover for nesting sites had been considered the major requirement, and fire had been thought necessary to create appropriate habitat. Current research, however, suggests that tree crown cover is the key factor limiting stand occupancy, and that ground cover composition is primarily affected by shade of tree crowns. Thus, burning may not be necessary for regenerating Kirtland's warbler habitat, and fire may actually have little influence on ground cover by the time stands are old enough (7 to 12 years) for warbler occupancy. The few days suitable for burning and the associated risk of uncontrolled fire have produced a backlog of stands that need to be regenerated. Because Forest Service research indicates that fire is probably not necessary to create suitable habitat, management strategies are now being developed as alternatives to fire-based methods to create habitat for Kirtland's warbler.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 Estimate lars in thousar	Decrease nds)
Wildlife, range, and fish habitat research \$ FTE	9,480	9,291	-189
	195	193	-2

A decrease of \$189,000 is proposed from the 1987 base.

Funding at this level will result in termination of lowest priority research while permitting continuation of high priority research, such as research on threatened and endangered species, intensive forest management and wildlife interactions, anadromous fish, and grazing effects on wildlife and fish. The following actions are anticipated:

- Reducing moose habitat research in Alaska and closing the laboratory at Fairbanks, AK. Administration of high priority studies will be moved to Anchorage, AK.
- Terminating goat vegetation research in the Southwest (Tempe, AZ).

Salaries and benefits	-68
Travel	<del>-</del> 5
Transportation of things	-1
Rent, communications, and utilities	-10
Supplies, materials, and equipment	-12
Other contractual services	-17
Grants, subsidies, and contributions	-76
Total	-189

### Forest Recreation Research

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest recreation research . \$ FTE	2,084 41	2,141 41	2,049	2,141 41	2,077 40	-64 -1

#### **Objective**

To provide land managers with the technology to provide more and higher quality outdoor recreation experiences. To develop knowledge to manage vegetation in and near urban areas for optimum economic, social, and environmental benefits.

# Program description

Recreation research provides a scientific basis for decisions on investments in forest recreation, ensures that appropriate recreation experiences are available, and provides technology to protect resources for future use. Continuing research addresses problems regarding the protection, management, and allocation of scarce recreation resources.

Urban forests and associated open land take up 50 percent of the space in the typical American city. These valuable resources produce many environmental, economic, and social benefits.

Urban forestry research provides new technology to maximize the amount and variety of benefits that urban forests produce. Forest science brings a unique perspective to problems of managing urban forest resources by treating the urban forest as a multiple use resource system. Such management considers all natural resources in and near urban environments, not just "street trees."

The program provides the means to:

- Determine factors that underlie recreation supply, demand, preferences, and benefits.
- Develop capabilities to provide high quality recreation experiences and facilities, while preserving natural environments.
- Determine methods to maintain safety, enhance educational opportunities, and reduce vandalism and conflict among recreation users.
  - Value benefits that urban forests can produce.
  - Manage urban forest resources to improve urban environments.
- Select, establish, maintain, and protect urban forest vegetation.

Examples of recent accomplishments follow:

- A new management system to determine the carrying capacity of wilderness. Most wilderness managers consider their major challenge to be determining wilderness carrying capacity for recreational use and managing for it. Despite increased knowledge about the severity of recreation's impacts and visitor preferences for solitude—the two primary components of carrying capacity—determining the maximum allowable number of recreational visitors has proven difficult.

Scientists at the Intermountain Station have developed a limits-of-acceptable-change approach, which solves the carrying capacity problem. The challenge is not one of preventing any human-induced change but rather one of deciding how much change will be allowed to occur, where, and how to control it. The system is a nine-step process that defines the amount of change to be allowed, identifies appropriate management actions needed to prevent further change, and establishes procedures for monitoring and evaluating management performance.



The Limits of Acceptable Change (LAC) System is a ninestep process that helps managers solve the wilderness carrying capacity problem.

- How many trees should there be in a park? Trees in urban parks are vulnerable to stress, disease, and insect attack. Many park managers are now planting "new" trees in anticipation of the decline and death of old trees. To be successful in maintaining the attractiveness of the park, managers need guidance about how many trees per acre look most attractive to park users.

The North Central Station and the Morton Arboretum cooperated in studying people's evaluations of various tree densities in two parks in the Chicago suburbs. Groups of people viewed and rated color slides depicting different tree densities. Most raters preferred tree densities of 50 to 65 trees per acre. A group of staff and volunteers at the Morton Arboretum, however, preferred somewhat higher densities of around 75 trees per acre.

This information can be used to guide tree replacement efforts by managers of parks where the species and size distributions of trees are similar to the parks photographed for this research. The Morton Arboretum is now cooperating with two Chicago-area park districts to implement these results in park reforestation programs, to maintain attractive park landscapes for future users.

Decrease for 1987		1987 Base (Dol	1987 Estimate lars in thousar	Decrease
	Forest recreation research	2,141	2,077 40	-64 -1

A decrease of \$64,000 is proposed from the 1987 base.

Funding at this level will sustain high priority research, such as wilderness management research and urban forestry research, while reducing lower priority research.

Planned actions include reducing research on river recreation management and closing the research unit (St. Paul, MN).
Administration of high priority studies will be moved to Chicago, IL.

Object class information	Salaries and benefits	-37 -3 -2 -4 -18
	Total	-64

### Forest Products and Harvesting Research

	985 tual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands		Inc.(+) or Dec.(-) from Base
Forest products and harvesting research \$ 18	,488 396	18,349 396	17,560	18,349 396	17,514 380	-835 -16

### Objective

To provide technology to harvest and utilize timber more efficiently. To develop timber harvesting and transporting systems that are economically and environmentally acceptable. To improve the performance of wood products. To expand opportunities for wood products exports. To reduce costs and energy consumption in wood processing. To facilitate forest management and environmental protection through improved harvesting and use of wood.

# Program description

Research expands the recovery of high value products from each log and increases the utilization of low value trees, logging residues, dead trees, whole trees, and mill wastes.

Utilization research produces improved lumber, structural particle-board, panels, pulp, paper, chemicals, and fuels from wood. It also develops wood-processing and preservative systems that will reduce waste, pollution, energy consumption, and losses from wood destroying organisms. It develops economical and energy efficient wood structures. Since the turn of the century, basic and applied research has developed the technology to nearly triple the product recovery from each log brought to the mill.

Harvesting research addresses specific regional forestry and environmental problems. In the Pacific Northwest and Alaska, the focus is on improved systems to harvest trees economically and to recover logging residues from steep terrain.

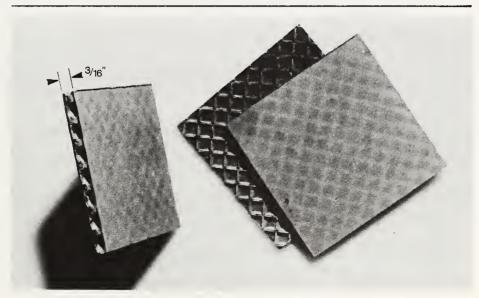
In the Intermountain area, research addresses the problems of forest road building on unstable slopes and harvesting operations in small diameter, overstocked timber stands.

In the East, harvesting research is conducted on new methods to recover and use low grade hardwood trees and logging residues.

In the South, the primary effort is on small trees and plantation harvesting. A major thrust is to recover the 180 million dry tons of residue, cull, and small trees left on harvest sites annually.

Some examples of recent accomplishments follow:

- FPL spaceboard. Research in paper and wood fiber materials technology has led to a new structural sandwich panel product which has been named "FPL Spaceboard." The new structural material is made up of pulp fiber sandwich panel components which are molded in a waffle-like configuration directly on the paper machine. Two such layers are bonded together to give a sandwich board that has exceptional and equal strength in both principal directions of the structure. This technology is being combined with other recent Forest Service advances in paper drying and water-repellancy which further increases the product's strength and water-resistance. The term "Spaceboard" is derived from the light weight and great strength of the new material which could lead to structural applications in space or in closer-to-home uses such as temporary remote shelters, flown-in emergency housing for disaster or military use, or shipping containers. For the same weight of fiber, the FPL Spaceboard (using hardwood fiber) was found, on a laboratory scale, to be from 30 to 200 percent stronger in edgewise compression strength than typical strengths for a commercial board made from softwood pulp.



This newly developed product, called FPL Spaceboard, can be made from low-quality wood pulp fiber and used to make a variety of high-performance structural products.

<sup>-</sup> Durable wood adhesives modified with renewable materials. During the past 25 years, petroleum-derived phenolic resins have been the most common adhesive used to produce weather-resistant wood products. The energy crisis of the 1970s and the inevitable decline in petroleum-derived adhesive have prompted research to develop adhesive components based on a readily available, renewable material that does not sacrifice high durability or bonding ease. This could lower the cost of bonded wood products.

Research has demonstrated that wood-derived carbohydrate chemicals can replace about half of the petroleum-derived phenolics now used in exterior wood adhesives. Plywood panels can be bonded with carbohydrate-modified phenolic adhesives at temperatures and pressures similar to those now used commercially to make bonded wood products. The panels have dry-wet-shear strengths equivalent to those of conventional phenolic adhesives.

Decr	ease
for	1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousan	Decrease nds)
Forest products and harvesting research \$	18,349	17,514	-835
	396	380	-16

A decrease of \$835,000 is proposed from the 1987 base.

The proposed decrease will be achieved through savings from programs which have been completed, termination and reduction of programs which have reached lower priority status, and deferment of planned new initiatives.

The following actions are anticipated:

- Terminating research on development of veneer-faced flakeboard panels and lumber (Com-ply). The program is essentially completed, and private industry is constructing a manufacturing facility which applies the technology (Athens, GA).
  - Terminating research on machining of wood (Carbondale, IL).
- Terminating research on the thermal properties of fiber-board container materials (Madison, WI).
- Reducing research on long term performance of composite flake/resin structural panel and board materials (Madison, WI).
- Reducing research on sawing, drying, and anatomical characteristics of domestic and tropical wood species (Madison, WI).
- Reducing research on problems of moisture movement and condensation in wooden structures (Madison, WI).
- Reducing research on harvesting and utilization of small diameter softwoods (Missoula, MT).

Salaries and benefits	-564
Travel	-13
Rent, communications, and utilities	-22
Supplies, materials, and equipment	-29
Other contractual services	-39
Grants, subsidies, and contributions	-168
Total	-835

## Special Projects, Competitive Grants

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Special projects, competitive grants\$	(7,840)	6,799	6,507	6,799	 	-6,799

### **Objective**

To develop fundamental knowledge and understanding of wood properties and structures, biological mechanisms of forest organisms, and relationships within forest ecosystems.

# Program description

Congress appropriated \$6,799,000 in FY 1986 for a Forest Service competitive research grants program in forestry, with funding directed at basic research in two areas:

- Improved harvesting, processing, and utilization, with emphasis on physical and mechanical properties of wood and wood chemistry.
  - Fundamental forest biology, including biotechnology.

This new competitive research grants program in forestry is administered by the USDA Competitive Research Grants Office in Science and Education—the same office administering the agricultural competitive grants program. Funds are allocated to the Competitive Research Grants Office, in Science and Education, Department of Agriculture.

The procedures for awarding grants are based on a competitive evaluation process used by the National Science Foundation. Requests for proposals appear in the Federal Register after clearance by the USDA Office of the General Counsel and the Office of Management and Budget.

Scientists on leave from their institutions serve as program managers or evaluation panel members. Federal employees serve as associate program managers performing essential administrative tasks.

All qualified scientists in the United States are eligible for grants, including Federal scientists.

A total of 476 proposals--many more than anticipated--totaling \$124.1 million were received for the \$7.8 million in grants appropriated for FY 1985. Of these, 54 received grants. The average grant was approximately \$135,000, and covered a three-year period. Grants were awarded as follows:

di allos nere anaraea as rorron	J.		
Program Area		Number of Grants	Amount
Harvesting, Process, and Util Wood chemistry and biochemi Physical properties and pro technology	stry	12 11	\$1,750,000 1,500,000
Structural wood engineering		5	500,000
	Subtotal	28	3,750,000
Forest biology, including bio Genetic structure and funct Mechanisms of interactions systems	ion in forest	11 15	1,500,000 2,250,000
	Subtotal	26	3,750,000
	Grants Total	54	\$7,500,000
U.S.D.A. Office of Competit Administrative Expenses	ive Grants,		340,000
FY 1985 Appropr	iation Total		\$7,840,000
	1987 <u>Base</u> (Dolla	1987 Estimate rs in thousan	<u>Decrease</u> ds)

Decrease for 1987		1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousa	Decrease ands)
	<pre>Special projects,   competitive grants \$</pre>	6,799		-6,799
	FTE			

A decrease of \$6,799,000 from the 1987 base will eliminate the program.

Since payoffs from this program are long term, it can be discontinued without affecting current efforts that are of higher priority.  $\frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \left( \frac{1}{2} \int_{-\infty}^{\infty} \frac$ 

Object class information	Printing and reproduction	-87 -117 -6,595
	Total	-6,799

### DISTRIBUTION OF RESEARCH FUNDS, FY 1985-1987 $\frac{1}{2}$

### Distribution by Station and Washington Office

Station	1985 Appropriation	1986 Appropriation (Dollars in thousands)	1987 Estimate
Pacific Northwest Pacific Southwest Intermountain Rocky Mountain North Central Northeastern Southeastern Southern Forest Products Lab Region 8 (FPM) Washington Office 2/ Acid Deposition Program Subtotal, Forest Service	\$ 14,488 8,811 10,286 9,511 10,088 15,890 12,461 13,378 12,259 261 6,393 	\$ 14,619 9,218 10,180 9,553 9,814 15,329 13,102 12,780 12,510  7,621 4,000 \$118,726	\$ 13,792 8,918 9,975 8,960 9,357 14,519 10,806 12,260 12,010  6,884 4,000 \$\$\frac{3}{\$\$\$}\$\$
Transfer to Office of Grants and Program Systems, Competitive Grants	(7,840) \$113,826	6,799 \$125,525	<del></del> \$111,481

- General Administration costs at Research locations are not charged to the Research appropriation, but are paid for out of the General Administration line item in the National Forest System appropriation.
- The Washington Office Research appropriations include costs for research administrators and staff scientists who are responsible for national research program coordination and expert scientific advice through Regional Experiment Station program review and analysis.
- 3/ \$4,000,000 will be distributed to the research Stations under the National Acid Deposition Research Program.

## Distribution by Function

Function	FY 1985 Actual (Dol	FY 1986 Estimate lars in thous	
Salaries/personnel compensation Personnel benefits Benefits for former personnel Travel and transportation of persons Transportation of things Standard level user charges Communications and utilities Building rentals Printing and reproduction Other contractual services Supplies and materials Equipment Lands and structures Grants, subsidies, and contributions Insurance claims and indemnities	\$ 70,329 8,988 186 3,785 543 1,757 4,751 119 1,016 12,719 3,168 5,022 75 679 6	\$ 70,794 9,047 187 4,411 633 1,888 5,537 139 1,184 14,824 3,692 5,853 87 7,242	\$ 67,746 8,657 179 3,960 568 1,583 4,970 125 1,063 13,308 3,314 5,254 78 670 6
TOTAL	\$113,143	\$125,525	\$111,481

FOREST RESEARCH PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-1104-0-1-302	1985 actual	1986 est.	1987 est
	Program by activities:			<del></del>
	Direct program:			
	<ol> <li>Fire and atmospheric sciences</li> </ol>	0.074	0.063	7 546
	research	8,074	8,063	7,546
	research	20,441	21,093	20,178
	<ol> <li>Forest inventory and analysis.</li> <li>Renewable resources economics</li> </ol>	16,630	17,049	14,222
	research	4,570	4,566	4,456
	<ol> <li>Timber management research</li> <li>Watershed management and</li> </ol>	22,984	22,467	21,339
	rehabilitation research 7. Wildlife, range, and fish	10,979	15,517	14,858
	habitat research	9,132	9,480	9,291
	8. Forest recreation research	2,027	2,141	2,077
	<ol><li>Forest products and harvesting research</li></ol>	18,306	18,349	17,514
	10. Competitive grants		6,800	
	Total direct program	113,143	125,525	111,481
0.00	Reimbursable program Total obligations	5,256 118,399	9,434 134,959	8,300 119,781
	Financing:	ŕ	ŕ	·
	Offsetting collections from:			
1.00	Federal funds	-4,979	-8,938	-7,864
4.00	Non-federal sources	-276	-496	-436
5.00	Unobligated balance lapsing	682	105 505	
19.00	Budget authority	113,826	125,525	111,481
0.0001	Budget authority:	121,666	126,283	111,481
0.0001	Appropriation	121,000	-758	111,401
1.0001	Transfer to other accounts	-7,840		
3.0001	Appropriation (adjusted)	113,826	125,525	111,481
	Relation of obligations to outlays:			
1.00 2.40	Obligations incurred, net	113,143	125,525	111,481
4.40	Obligated balance, start of year Obligated balance, end of year	21,274 -21,348	21,348 -23,894	23,894 -20,922
0.00	Outlays	113,069	122,979	114,453
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested:			
	Budget authority	113,826 113,069	125,525 122,979	111,481 114,453
	Outlays Reduction pursuant to P.L. 99-177:	113,009	166,3/3	117,400
	Budget authority Outlays	• • • •	-5,398 -4,152	-1,267
		• • • •	.,102	1,207
	Total: Budget authority	113,826	120,127	111,481

FOREST RESEARCH

OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-1104-0-1-302	1985 actual	1986 est.	1987 est.
11.1	Direct obligations: Personnel compensation: Full-time permanent	65,011	65,430	62,623
11.3	Other than full-time permanent	5,045	5,076	4,864
11.5	Other personnel compensation	273	288	259
11.9	Total personnel compensation	70,329	70,794	67,746
12.1	Personnel benefits: Civilian	8,988	9,047	8,657
13.0	Benefits for former personnel	186	187	179
21.0	Travel and transportation of persons	3,785	4,411	3,960
22.0	Transportation of things	543	633	568
23.1	Standard level user charges	1,757	1,888	1,583
23.2	Rental payments to others	119	139	125
23.3	Communications, utilities, and miscella- neous charges	4,751	5,537	4,970
24.0	Printing and reproduction	1,016	1,184	1,063
25.0	Other services	12,719	14,824	13,308
26.0	Supplies and materials	3,168	3,692	3,314
31.0	Equipment	5,022	5,853	5,254
32.0	Lands and structures	75	87	78
41.0	Grants, subsidies, and contributions	679	7,242	670
42.0	Insurance claims and indemnities	6	7	6
99.0	Subtotal direct obligations	113,143	125,525	111,481
99.0	Reimbursable obligations	5,256	9,434	8,300
99.9	Total obligations	118,399	134,959	119,781

FOREST RESEARCH
PERSONNEL SUMMARY

Identification code:	1985 actual	1986 est.	1987 est
12-1104-0-1-302			
Direct:			
Total number of full-time			
permanent positions	2,136	2,101	2,015
Total compensable workyears:	-		•
Full-time equivalent employment	2,348	2,363	2,262
Full-time equivalent of overtime			
and holiday hours	10	10	9
Average ES salary	68,043	68,043	68,043
Average GS grade	11.82	11.82	11.82
Average GS salary	32,633	32,633	32,633
Average salary of ungraded positions	22,318	22,318	22,318
Reimbursable:			
Total number of full-time			
permanent positions	28	28	27
Total compensable workyears:			
Full-time equivalent employment	53	53	51
Full-time equivalent of overtime			
and holiday hours	1	1	1
Average ES salary			
Average GS grade	12.79	12.79	12.79
Average GS salary	38,959	38,959	38,959
Average salary of ungraded positions		´	´

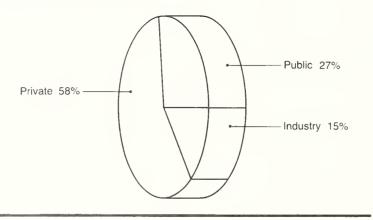


# **State and Private Forestry**

	1985 <u>Actual</u>	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	Base	1987 Estimate s)	Inc.(+) or Dec.(-) from 1986	
Forest pest management \$ FTE	28,825 426	29,433 395	28,168	29,433 395		-10,762 -12	-10,762 -12
Fire protection \$	13,739 50	13,618 50	13,032	13,618 50	3,400 50	-10,218	-10,218 
Forest management and utilization \$ FTE	10,756 98	9,945 97	9,518 	9,945 97	 	-9,945 -97	-9,945 -97
Special projects\$	4,972 12	4,642 10	4,442 	4,642 10	2,800	-1,842 -10	-1,842 -10
Total \$ FTE	58,292 586	57,638 552	55,160 	57,638 552	24,871 433	-32,767 -119	-32,767 -119

Appropriation Summary Statement Fifty-eight percent of the Nation's commercial forest land is in nonindustrial private ownership. This land is important in meeting needs for natural resources, especially timber. Of the 278 million acres of nonindustrial private commercial forest land, 124 million acres contain economic opportunities for intensified management. Cooperative State and private forestry programs help landowners manage their lands better.

# Ownership Commercial Forest Land



Forest Service State and private forestry programs provide national leadership and assistance through high priority Federal activities, including coordination, information, analysis and planning, cooperative project management, technology development and transfer, and emergency programs.

Cooperative forestry programs are delivered through State Foresters or equivalent officials in the 50 States, District of Columbia, Trust territories of the Pacific Islands, Northern Mariana Islands, Puerto Rico, and the Virgin Islands. The programs are authorized by the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101-2110).

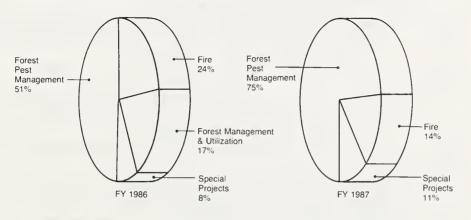
Federal assistance is provided to:

- Protect non-Federal wildlands from fire.
- Reduce losses of timber, tree growth, and quality of wood products through protection from damaging insects and diseases.
- Assist landowners, operators, wood processors, and State and local agencies in increasing timber growth and harvests; protecting soil and water; and improving efficiency and reducing waste in wood product harvesting, processing, and marketing.
  - Manage rural and urban forest resources for multiple uses.

The Forest Service annually negotiates with each State the priorities and specific activities the State will contribute to the overall national program. Available Federal assistance, based on the agreed upon program activities, is provided to the State. To the degree that Federal funding is reduced or eliminated, individual State priorities and budget constraints determine the level of program activity.

The following chart shows the proposed distribution of State and Private Forestry funds for FY 1986 and FY 1987.

#### State and Private Forestry Programs



Forest Service cooperative forestry programs are closely related to, but distinct from, assistance programs of other USDA agencies, including the Soil Conservation Service, the Extension Service, the Agricultural Stabilization and Conservation Service, and the Farmers Home Administration. Intra-agency agreements explain each agency's responsibility for encouraging protection, management, and use of privately owned forest resources.

Federal cooperative forestry programs help achieve resource management objectives associated with the Resource Conservation Act and the National Conservation Program. Funding in forest management is targeted at controlling erosion and flooding through forestry.

State and private forestry also provides national leadership for transferring forestry technology. The goal is to assist in the transfer of forestry research results to improve forest resource protection, management, and utilization.

State forest resources planning and organizational management assistance is funded from the benefiting programs of forest pest management, fire protection, and forest management and utilization. The planning program provides assistance to States in identifying State responsibility and priority for various forestry management programs. At the FY 1987 budget level, no funding is provided for management improvement.

#### Authorities

- P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703.

  Erect, alter, and repair buildings necessary to carry out authorized work.
- P.L. 89-106, The Special Research Grants Act of August 4, 1965
   (7 U.S.C. 2250a). Section 1.
   Erection and leasing buildings, structures, and land from non-Federal sources.

   Such sums as appropriated, no expiration date specified.
- P.L. 95-313, Cooperative Forestry Assistance Act of 1978, July 1, 1978 (16 U.S.C. 2101-2110). Sections 3 and 5-8.

  Cooperation in forest management and urban and community forestry; insect and disease control; rural fire control; and management and planning assistance.

  (05-96) 12-1100 302 SAGR HAGR
  Such sums as appropriated; no expiration date specified.
- P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended (16 U.S.C. 1601). Sections 2-5.

  Forest resources planning and evaluation.

  (05-96) 12-1100 302 SAGR HAGR

  Such sums as appropriated; no expiration date specified.
- P.L. 95-495, Act of October 21, 1978 (92 Stat. 1649), Section 6(d)(2). Establishes Boundary Waters Canoe Area Wilderness. \$3,000,000 additional for grants to the State of Minnesota for resource management activities.

  Authority for this grant expires at the end of FY 1990.
- P.L. 96-586, Act of December 23, 1980. Sections 2(g) and 3.
  Land acquisitions in the Lake Tahoe Basin.
  Payments to localities for water pollution control and land management.
  (05-96) 12-1105 302 SENR HIIA
  Authorization is 15 percent of the Land and Water Conservation Fund appropriation for Lake Tahoe Basin land acquisitions each year. Expires when all Clark County, Nevada, land specified in the Act is sold by the U.S. Department of Interior, Bureau of Land Management.
- P.L. 99-198, Act of December 23, 1985, the Agriculture, Food, Trade, and Conservation Act.

  Such sums as may be necessary; authority expires at the end of calendar year 1990.

### **Forest Pest Management**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	Estimate	Inc.(+) or Dec.(-) from Base
Federal lands Surveys and technical assistance\$ Million acres FTE	10,933 139 253	11,415 144 236	10,924	11,415 144 236	11,343 135 236	-72 -9 
Insect and disease suppression\$ Thousand acres	7,919 249 153	8,051 N/A 141	7,705  	8,051 N/A 141	5,402 N/A 129	-2,649  -12
Special projects\$	1,227 20	1,244 18	1,191	1,244 18	1,250 18	+6 
Cooperative Lands Surveys and technical assistance\$ Million acres FTE	1,886 417	1,865 411 	1,785	1,865 411 	676 35 	-1,189 -376 
Insect and disease suppression \$ Thousand acres	6,860 864	6,858 N/A 	6,563  	6,858 N/A 		-6,858  
Total \$ FTE	28,825 426	29,433 395	28,168	29,433 395	18,671 383	-10,762 -12

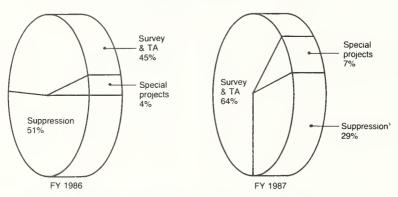
N/A = Not available. Acres are not available until the work is completed.

#### General

The forest pest management program prevents and reduces insect and disease-caused losses with emphasis on integrated pest management. The program's primary roles are to provide technical and financial assistance for technology transfer; coordination in forest insect and disease detection, evaluation, and prevention; and suppression on forest lands of all ownerships.

To accomplish its general objective, Forest Pest Management is separated into surveys and technical assistance, suppression, and special projects. The distribution of funding for these categories for FY 1986 and FY 1987 follows.

### Forest Pest Management Program



<sup>1</sup>Reduction from FY 1986 level reflects elimination of funding for cooperative insect and disease suppression.



A female gypsy moth laying eggs.

#### Federal Lands: Surveys and Technical Assistance

#### **Objective**

To detect and evaluate insect and disease outbreaks at an early stage to reduce suppression costs and forest resource losses. To provide technical assistance on integrated pest management, prevention strategies, and proper use and handling of pesticides.

# Program description

This program provides nationwide support for pest detection surveys, evaluations, and reports of pest problems to Federal land managers (including U.S. Departments of Agriculture, Interior, and Defense) and to Congress.

A major goal of this program is to get pest management principles incorporated into forest management and thereby reduce periodic major pest outbreaks.

This program provides technical advice and transfers technology to Federal land managers by sponsoring training sessions, seminars, symposia, and workshops to ensure that sound pest management strategies are used in forest resource management and that pesticides are not misused.



A typical Southern pine beetle infestation on the National Forests in Texas which has been treated by the cut-and-leave method. The remaining standing trees, where beetles have been and left, are pine or hardwoods.

In FY 1985, 139 million acres of Federal forest lands were surveyed, resulting in 508 biological evaluations on 14 million acres of land.

This accomplishment delineated insect and disease occurrences, including damage possibly caused by atmospheric pollution or acid deposition, and provided land managers with information needed to evaluate control options, including no control.

Major forest pest problems surveyed and evaluated in FY 1985 include spruce decline and gypsy moth in the East; dwarf mistletoe, mountain pine beetle, and spruce budworm in the West; and southern pine beetle and oak wilt in the South.

In FY 1985, 1,791 Federal employees received training in insect and disease management and 306 Federal employees were trained in pesticide-use management and coordination.

Decrease for 1987			1987 <u>Estimate</u> lars in thousands	Decrease
	Federal lands: Surveys and technical assistance\$ FTE	11,415 236	11,343 236	-72 
	A decrease of \$72,000 is propos improvements will minimize the			
	This decrease will maintain det assistance activities on Federa outbreaks.			
Object class information	Supplies, materials, and equipm Other contractual services		-5 -67	
	Total		-72	

#### Federal Lands: Insect and Disease Suppression

#### Objective

To prevent and reduce economically unacceptable forest resource losses by suppressing damaging forest insects and diseases with the latest integrated pest management techniques. To maintain healthy, productive forest environments.

### Program description

Forest insects and diseases weaken and kill trees, cause growth loss and site deterioration, and reduce the quality of the forest environment. This program uses silvicultural, biological, chemical, and mechanical methods to suppress major forest pests. Examples of current major pest outbreaks are the gypsy moth, spruce budworm, bark beetle, and dwarf mistletoe.

During FY 1985, approximately 238,700 acres of National Forest System lands and 10,600 acres of other Federal lands were treated. These suppression activities protected about 228 million cubic feet of merchantable timber. Salvage operations removed 78 million cubic feet of infested merchantable timber. Further degradation of aesthetics, recreation, wildlife, water quality, and other resource values was prevented in the treatment areas.

Expectations for FY 1986 and FY 1987 are that major pest outbreaks will continue and suppression will be necessary to reduce economic damage and tree mortality. Initial targets for pest suppression are not included for FY 1986 and FY 1987, as specific outbreaks cannot be forecast at this time. Targets will be established when actual suppression projects are approved, based on timely site specific evaluations.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousan	Decrease
Federal lands Insect and disease suppression\$ FTE	8,051	5,402	-2,649
	141	129	-12

A decrease of 2,649,000 is proposed from the 1987 base. This program level will provide for treating those pests causing the most severe damage.

The decrease also allows for responding to litigation related to major forest pest suppression, obtaining technical and legal assistance in preparing risk and worst case analyses, and compiling information on pesticides used in forest resource management.

State and private landowners will be responsible for suppression on their lands. Federal funds will be used on State and private lands when Federal suppression projects include intermingled State and private lands as part of a biologically sound treatment unit. Technical assistance for management improvement on State and private lands is not included in this program.

### Object class information

Salaries and benefits	-343 -153 -30 -35 -2,088
Total	-2,649

#### Special Projects

#### Objective

To obtain information on pest impacts. To develop and demonstrate new or improved technology and bring it into use. To assess benefits and risks of using pesticides for forest pest management activities.

### Program description

This program:

- -- Carries out long term impact assessments to provide information for improving pest management program decisions.
- -- Develops, improves, and demonstrates new technologies, materials, methods, and strategies to improve forest pest management efficiency.
- -- Evaluates the benefits and environmental risks of using pesticides critically important to forestry under the USDA-National Agricultural Pesticide Impact Assessment Program (NAPIAP).

In FY 1985, special projects included the cooperative Maryland integrated pest management gypsy moth pilot project, and continued production of the Douglas-fir tussock moth virus at the Forestry Sciences Laboratory in Corvallis, Oregon.

NAPIAP projects fill data gaps on environmental effects, human exposure, and timber growth yields associated with the use of pesticides in forestry.

Incr	ease
for	1987

	1987 Base (Do	198/ Estimate llars in thousands)	Increase
Special projects \$	1,244	1,250	+6
FTE	18	18	

An increase of \$6,000 is proposed from the 1987 base. This program level provides for priority special projects related to impact assessment, virus production and evaluation, and continuation of NAPIAP projects.

### Object class information

Other contractual	services	+6
Total		+6

#### Cooperative Lands: Surveys and Technical Assistance

#### Objective |

To maximize Federal and States efficiency in conducting a coordinated pest management program. To detect and evaluate insect and disease outbreaks at an early stage to reduce forest resource losses and suppression costs. To provide technical assistance and coordination on pest management activities on State and private lands. To provide Federal forest managers information about pest activities on adjacent lands.

### Program description

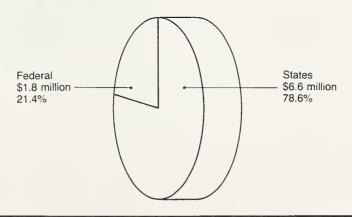
The Cooperative Pest Action Program shares costs with the States for surveying and evaluating insects and diseases. These assessments of pest-caused damage on non-Federal forest resources provide managers of Federal lands, intermingled with State and private lands, information needed to redeem USDA pest management coordination roles. The information is also used to assess the condition of the nation's forest resources with respect to pest-caused damages.

The program shares the cost of providing technology transfer and technical assistance to private forest landowners, helping ensure coordination of a sound pest management program. This coordinated approach to pest management across all forest land ownerships increases effectiveness and efficiency and minimizes adverse environmental and human health impacts that can result from uninformed and uncoordinated pest management activities.

In FY 1985, about 417 million acres of State and private lands were surveyed to detect pests. These surveys resulted in 1,992 evaluations of pest conditions on about 79 million acres.

In FY 1985, 22,726 State personnel were trained in insect and disease management and 3,293 in pesticide-use management and coordination.

#### Cooperative Surveys and Technical Assistance 1985 Financial Assistance



Decrease for 1987		1987 <u>Base</u> (Dolla	1987 Estimate rs in thousands	Decrease				
	Cooperative lands: Surveys and technical assistance\$ FTE	1,865	676 	-1,189				
	A decrease of \$1,189,000 is propo eliminates the Forest Service's C	sed from the ooperative Fo	1987 base. Thi brest Pest Actio	s n Program.				
	States are expected to continue effective State and private survey and technical assistance programs commensurate with State priorities.							
	The funds proposed will permit the State-collected data on forest peneeded for managing intermingled assessments of pest conditions.	st conditions	s in selected ar	eas where				
Object class information	Other contractual services Grants, subsidies, and contributi		+174 -1,363					
	Total		-1 180					

#### Cooperative Lands: Insect and Disease Suppression

#### Objective

To prevent and reduce economically unacceptable forest resource losses on State and private forests by suppressing damaging forest insects and diseases, using the latest integrated pest management techniques. To facilitate the coordination of suppression projects on intermingled land ownerships.

# Program description

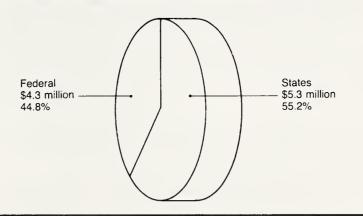
Current major problems on State and private lands are the gypsy moth, spruce budworms, and bark beetles.

In FY 1985, Federal financial assistance was provided for projects that met biological, environmental, economic, and Federal criteria. The FY 1985 and FY 1986 assistance rate is 25 percent for non-Federal public lands, 33-1/3 percent for industrial lands, and 50 percent for nonindustrial private lands.

In FY 1985, this program treated 864 thousand acres of State and private lands, protected 2.9 million cubic feet of merchantable timber, and removed 73 million feet of infested merchantable timber through salvage operations.

Additionally, in FY 1985, forest pest management provided \$.7 million to USDA-Animal Plant Health Inspection Service for gypsy moth eradication in Oregon and other States. However, technical assistance was provided for both the gypsy moth eradication project and for grasshopper control efforts.

### Cooperative Insect and Disease Suppression 1985 Financial Assistance



Decrease for 1987		1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousand	Decrease Is)
	Cooperative lands: Insect and disease suppression \$ FTE	6,858 	 	-6,858 
	A decrease of \$6,858,000 is prop	osed from the	e 1987 base.	
	This program level eliminates Fe States for cooperative insect ar exception is where intermingled a Federal lands suppression prog Disease Suppression).	nd disease su State and pr	ppression projec ivate lands are	ts. An involved in
Object class information	Grants, subsidies, and contribut		-6,858	
	Total	• • • • • • • • • • • •	-6,858	3

#### Fire Protection

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Fire protection \$	13,739 50	13,618 50	13,032	13,618 50	3,400 50	-10,218

#### Objective

To achieve efficiency in fire protection on non-Federal wildlands. To achieve national benefits that exceed Federal expenditures for fire protection on non-Federal wildlands. To cooperate, participate, and consult with the States on fire protection for non-Federal wildlands and other rural lands.

### Program description

The fire protection program helps protect 834 million acres of non-Federal lands from wildfire.

States and their political subdivisions have the primary responsibility for fire protection. The fire protection program uses Forest Service technical and related assistance to assist the States in efficiently and adequately protecting non-Federal wildlands. Program objectives are achieved through leadership, coordination, and cooperation.

The fire protection program consists of:

- Wildland fire protection. Providing Federal technical and related assistance in fire protection for non-Federal wildlands.
- Federal excess personal property. Loaning Federal excess personal property to State Foresters for rural fire protection programs. Because of the shortage of some types of property in this program, an efficiency analysis is used to assign the property where the greatest potential gain can be expected.
- Smokey Bear program. Continuing a nationwide fire prevention program through public service advertisements and educational programs.

National interest priorities are:

- Information. Collecting consistent historical and new data for planning and analysis, assessing accomplishments and opportunities for improved management, and conducting efficiency studies.
- Analysis and planning. Helping States determine the efficient use of fire protection resources and steps for implementing and maintaining efficient levels of fire protection.
- Technology development and transfer. Providing assistance for developing and transferring new ideas and technologies between States and Federal agencies to improve fire protection efficiency.
- Shared protection resources. Developing and maintaining fire protection resources to share among Federal, State, and local agencies for more cost-effective operations.

The combination of increased State funding and direct Federal financial and technical assistance to States under this program has been successful in significantly reducing the acres burned. The average annual acres burned for the last two decades has been about 2.8 million acres, compared with an annual average of some 3.3 million acres during the first decade of Federal participation in State fire protection programs.

The program emphasizes Forest Service participation in activities that result in the most efficient level of cooperative fire protection, with priorities on activities of national interest.

Decrease for 1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousand	Decrease
Fire protection\$	13,618 50	3,400 50	-10,218

A decrease of \$10,218,000 is proposed from the 1987 base. This will redefine Forest Service involvement with the States' fire protection program. Historically, the basic program was one of financial assistance to the States. This amounted to 5 percent of the total State fire expenditures nationwide; it varied from 1 percent in California to 50 percent in Illinois. Financial assistance is eliminated in FY 1987 and greater reliance is being placed on local units to fulfill their fire protection responsibilities for these wildlands.

The budget will limit the Federal role to providing technical assistance to States in:

- Completing basic State efficiency analysis, incorporating results into regional and national plans, and providing new technology in fire planning.
- Training in and implementing the National Interagency Incident Management System, a total systems approach that provides for an all-risk incident command.
- Providing for State participation with all Federal agencies in national wildland fire coordination, and participation as members of the National Wildfire Coordinating Group and national training courses.
- Transferring new firefighting technology for standardization, and coordinating shared resources between State and Federal agencies.
- Implementing wildland fire prevention programs, including the Smokey Bear program.
- Acquiring and managing Federal excess personal property for more efficient State wildland and rural community fire protection as determined through planning and analysis.
- Serving as the technical advisor to the Federal Emergency Management Agency in State fire emergencies.

Obje	ect	cl	ass
info	orma	ıti	on

Other contractual services	-229 -9,989
Total	-10,218

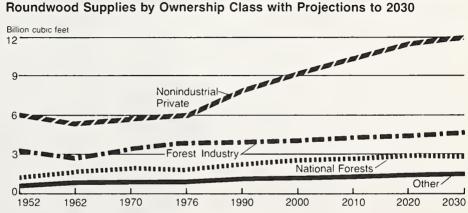
### Forest Management and Utilization

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction Dollars in	Base	Estimate	Inc.(+) or Dec.(-) from Base
Forest resource management \$ Thousand acres FTE	5,137 3,585 59	5,205 3,500 58	4,981  	5,205 3,500 58	==	-5,205 -3,500 -58
Wood utilization \$ Million cubic feet FTE	955 72 20	954 19 20	913  	954 19 20	 	-954 -19 -20
Seedlings, nursery and tree improvement \$ Million seedlings FTE	1,728 733 10	1,798 725 10	1,721  	1,798 725 10	  	-1,798 -725 -10
Urban forestry \$	1,956 9	1,988 9	1,903	1,988 9		-1,988 -9
Management improvement\$	980 		<u> 1</u> /			
Total \$ FTE	10,756 98	9,945 97	9,518 	9,945 97		-9,945 -97

<sup>1/</sup> In FY 1986, management improvement is funded from the benefiting programs of forest pest management, fire protection, and forest management and utilization.

#### **General**

Private nonindustrial forest lands are a major source of U.S. wood supplies, providing 47 percent of roundwood supplies to the forest products industry. Timber output from nonindustrial private forest lands is projected to be the largest source of future U.S. wood supply. Cooperative Federal-State programs improve their productivity.



#### Forest Resource Management

#### **Objective**

To improve forest management. To protect soil and water resources on nonindustrial private forest lands.

### Program description

Cooperative technical assistance in forest management is provided by the Forest Service through State service foresters.

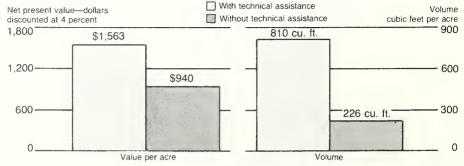
This assistance improves the likelihood of reforestation after harvesting, increases economic return to encourage private investment in forest management, enhances water quality, and ensures the value and quality of stocking of forest stands after harvest or cutting to improve timber stands.

A current example of cooperative technical assistance is the response to the Conservation Reserve section of the 1985 Farm Bill (P.L. 99-198). Working under the guidance of the Forest Service, the State service foresters will work with the Soil Conservation Service and the Agricultural Stabilization and Conservation Service to help landowners place their eroding cropland in the Conservation Reserve. The service foresters and contracted private consulting foresters will provide technical assistance to landowners to develop tree planting plans and will assure quality control during tree planting. Both the House and Senate reports on the 1985 Farm Bill (P.L. 99-198) direct USDA to make maximum use of private sector resources in implementing the Conservation Reserve, to the extent that is practical and cost effective.

Forest lands of owners who receive assistance are more valuable, contribute more to future timber supplies, have greater timber volume, and retain more value in residual stands after harvesting.

Improper harvesting and logging operations may reduce water quality and diminish the quality and value of residual forest stands after harvesting.

# Economic Value of Technical Assistance Provided through Cooperative Forest Management Programs



Value and volume of nonindustrial private forest land

Source: Cubbage, Fredrick W. "The Economic Contribution of Cooperative Forest Management Programs." University of Georgia, 1984.



Technical assistance before harvesting prevents destructive logging which damages soil and water resources and leaves forest sites unproductive for many years.

Currently, 66 percent of harvested acres in the South remain unstocked or regenerate in low quality hardwoods. However, the probability of a landowner reforesting lands following harvest is 60 percent greater when a service forester is consulted.

Forest management assistance provided by service foresters is the most important factor influencing reforestation decisions by landowners, exceeding the influence of market variables, income, and size of ownership.



Technical assistance-service forester and landowner determining age of trees.

Decrease for 1987		1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousand	Decrease			
	Forest resource management \$ FTE	5,205 58		-5,205 -58			
	A decrease of \$5,205,000 is proposed from the 1987 base. This discontinues funding for forest resource management.						
	States will continue these acti priorities and budget constrain		ing to their ove	rall			
Object class information	Salaries and benefits Travel Grants, subsidies, and contribu		-2,477 -87 -2,641				
	Total	• • • • • • • • • • • • • • • • • • • •	-5,205				

#### Wood Utilization

#### Objective

To increase the value and utilization of timber and wood products through improved harvesting, processing, and marketing.

### Program description

Technical assistance provided to loggers and processors by Federal and State specialists introduces new and existing technologies to improve the competitiveness of the forest products industry in the U.S., and to expand opportunities to increase exports and reduce imports. Assistance is also provided to State agencies for economic development of communities with potential forest industry growth.

Technical assistance, such as computer simulation of log breakdown in the sawmill, helps increase production from timber harvesting, lumber processing, and wood products manufacturing, thus reducing unit costs and generating greater returns to industry and the Government.

For example, with substantial help from the sawmill improvement program, sawmills today produce 2.4 billion more board feet from the same volume of logs produced 15 years ago--equivalent to doubling timber growth on 7 million acres of southern pine forest. Improved lumber recovery generates higher profits for industry and additional returns to the U.S. Treasury. If one-half of eligible firms undertake such improvements, tax payments to the U.S. Treasury would increase an estimated \$22.8 million.

In FY 1986, emphasis is directed toward marketing assistance--expanding the range of markets for forest products to improve economic conditions. This provides the greatest potential for improving forest resources conditions. Specific activities will include:

- Assisting clients pursuing international trade.
- Focusing on projects to illustrate new products or manufacturing processes.
- Coordinating regional marketing conferences and international trade missions.
- Conducting feasibility studies to evaluate forest products potential in varying markets.

Depending on regional need, assistance in the efficiency components of wood resource development--primary and secondary processing and better harvesting techniques--will also be provided.



Aspen structural lumber produced with new Saw-Dry-Rip technology. This was used for a Forest Service office building in New Mexico which incorporates the truss-framed system, another recent innovation developed by Forest Service research.

Improper harvesting is costly because it degrades the quality and volume of wood. On the average, operators lose about 6 percent of merchantable wood volume during harvesting because of poor or careless practices--equivalent to about 4.8 billion board feet (752 million cubic feet) of timber that is harvested annually but never used. Technical assistance substantially reduces this loss.

The Forest Service has developed a new computer program called UCHEK for timber sales administrators to better evaluate and improve recovery at logging operations and to increase operators' profits and Forest Service receipts. State and private forestry utilization specialists are training timber sales administrators to use the program.

Decr	ease
for	1987

	1987 <u>Base</u> (Do	1987 Estimate llars in thousand	Decrease
Wood utilization \$ FTE	954 20		-954 -20

A decrease of \$954,000 is proposed from the 1987 base. This discontinues funding for wood utilization.

States will continue these activities according to their overall priorities and budget constraints. The Forest Service recommends that States expand their efforts to identify foreign market opportunities to offset increasing wood product trade imbalances.

Object	class
informa	tion

Salaries and benefits	-862
Grants, subsidies, and contributions	<b>-</b> 92

Total ..... -954

### Seedlings, Nursery and Tree Improvement

Objective |

To provide genetically improved tree seed and planting stock for reforestation, which protects soil and water resources and improves productivity.

Program description

The cooperative Federal-State program is directed toward upgrading the quality of nursery operations and to producing trees with improved growth, form, and resistance to insects and disease.

The 88 State forest nurseries, developed with Federal and State funds, produce about 38 percent of total seedling production in the U.S. About 25 percent of the production from these nurseries is planted on industrial lands, 64 percent on nonindustrial private lands, and 11 percent on State, Federal, and other lands.



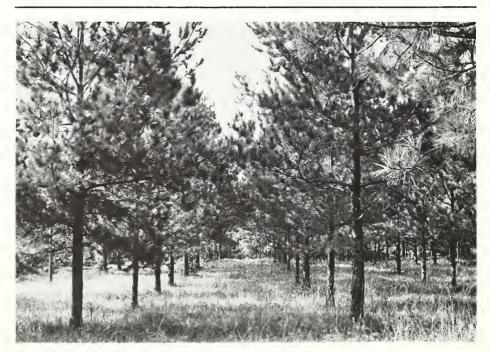
Southern pine seedlings in Georgia State nursery, Tifton, Georgia.

Meeting the forest industry's projected softwood timber demand requires doubling reforestation. Use of genetically improved planting stock results in faster growing trees and higher survival rates for seedlings to meet reforestation needs.

The demand for seedlings is expected to more than double during the next five years in response to the Conservation Reserve section of the 1985 Farm Bill (P.L. 99-198). Between 4 and 5 million acres of trees are expected to be planted on eroding cropland as part of the 40 to 45 million acre reserve. This will be an annual average of 1 million more acres of trees planted than the current 730 thousand acres of annual tree planting on private land. Technical assistance will be provided to State, private, and forest industry nurseries to assure that acceptable seedlings are produced and distributed where needed to accomplish the erosion reduction goals of this national program.

Increased yields of up to 20-30 percent are possible through secondgeneration genetic improvement in tree breeding. These productivity gains are permanent, and increase stand values by 30-50 percent due to faster growth and improved wood quality.

Twenty-five percent of the tree seedlings currently produced by State nurseries are superior to wild seedlings. Established seed orchards are beginning to produce seed and the percentage of improved seedlings available will increase substantially within the next few years.



Technical and financial assistance in tree improvement produces first generation seedlings that grow 15 percent faster with better quality wood.

Decr	ease
for	1987

	Base (Doll	Estimate ars in thousands	Decrease
Seedlings, nursery, and tree improvement \$	1,798		-1,798
FTE	10		-10

A decrease of \$1,798,000 is proposed from the 1987 base. This eliminates the Federal program for seedlings, nursery, and tree improvement.

To meet requirements of the Federal Conservation Reserve program, States will need to substantially increase their seedling and nursery programs. Success of the Conservation Reserve tree planting program will be dependent upon States to upgrade their seedling and nursery facilities. States vary in their practices of charging for seedlings. As private landowners start to participate in the Conservation Reserve, for which they receive Federal payments, more States are expected to operate their nurseries on a full cost recovery basis.

# Object class information

Salaries and benefits	-426 -44 -1,328
Total	-1,798

#### Urban Forestry

Objective

To maximize contribution of urban forests to improved soil, water, and air quality; energy production and conservation; and enhancement of community environment.

Program description

The urban forestry program provides technical assistance to State forestry agencies to encourage management of trees, forests, and associated natural resources in and near urban areas. Target audiences are planners, developers, builders, landscape architects, city foresters, citizen groups, tree service companies, forestry consultants, and homeowners. In FY 1985, over 4,900 of the Nation's nearly 8,800 communities of 2,000 or more people (56 percent) were assisted.

Five regional conferences on urban forestry with some 2,000 participants were held in FY 1985, focusing on regional issues and technology transfer of urban forestry programs. The Third National Urban Forestry Conference is scheduled for December 1986 in Orlando, Florida.



The urban forestry program provides technical assistance to help States manage urban trees and other natural resources in urban areas.

Decrease for 1987		1987 Base (Dollar	1987 Estimate rs in thousands)	Decrease
	Urban forestry \$ FTE	1,988 9		<b>-1,988</b> -9
	A decrease of \$1,988,000 is propose liminates the Federal program fun forestry.			
	It is expected that States and cit according to their overall priorit			vities
Object class information	Salaries and benefits		-384 -51 -1,553	
	Total		-1,988	

### **Special Projects**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	Base		Inc.(+) or Dec.(-) from Base
Boundary Waters Canoe Area \$ FTE	2,940	2,982	2,854	2,982	2,800	-182 
Pinchot Institute for Conservation Studies \$	245 10	199 8	190 	199 8		-199 -8
Lake Tahoe (P.L. 96-586)\$ FTE	1,469 2	1,461 2	1,398	1,461		-1,461 -2
Disabled Veterans Recreation, Inc\$ FTE	318		 			 
Total\$ FTE	4,972 12	4,642 10	4,442 	4,642 10	2,800	-1,842 -10

#### General

Special projects involve activities to accomplish specialized objectives usually not available through other Forest Service programs. Current activities include intensive forest management associated with establishment of the Boundary Waters Canoe Area Wilderness in Minnesota, the Pinchot Institute for Conservation Studies, and water pollution control and mitigation of soil erosion in the Lake Tahoe Basin.

#### Boundary Waters Canoe Area

#### Objective

To provide technical and financial assistance to the State of Minnesota in implementing the Boundary Waters Canoe Area Wilderness legislation.

# Program description:

The Boundary Waters Canoe Area project provides for an intensive forest management program on State, county, and private lands in Minnesota.

Under Section 6 of P.L. 95-495, intensive forest management activities are concentrated in the five northeastern Minnesota counties of Lake, Cook, St. Louis, Koochiching, and Carlton to help prevent reduction in the sustained yield of softwood timber.

In FY 1985, the State provided \$750,000 to cost-share with \$2,940,000 of Federal funds. Program accomplishments in FY 1985 and planned accomplishments in FY 1986 and FY 1987 are:

		FY 1986 (planned)	FY 1987 (planned)
Reforestation(acres)	22,400	20,500	19,000
Timber stand improvement(acres)	11,800	8,700	8,000
Road maintenance and improvement(miles)	886	740	690
Seedling production(million seedlings)	22	28	26

#### Decrease for 1987

	Base (Doll	Estimate ars in thousand	ds) Decrease
Boundary Waters Canoe Area\$	2,982	2,800	-182
FTE			

1987

1987

A decrease of \$182,000 is proposed from the 1987 base. This decrease will reduce funding to the State of Minnesota; however, it is expected that the State will continue the intensive forest management program at the current level. State participation is dependent upon its overall priorities and budget constraints.

# Object class information

G

irants,	subsidies,	and contributions	• • • • •	-182
Tota	al		• • • • • •	-182

#### Pinchot Institute for Conservation Studies

#### Objective

To restore and manage the Grey Towers National Historic Landmark as a unique cultural and historic resource for interpreting the development of American forestry and natural resources conservation. To advance excellence in natural resource conservation and facilitate the use of the Institute and Grey Towers as a conference center and retreat site for conservation organizations and agencies. To provide a national focal point for urban forestry information and communications.

### Program description

The Pinchot Institute for Conservation Studies is a special unit of the Forest Service located at the Grey Towers National Historic Landmark in Milford, Pennsylvania. Grey Towers is a 101-acre, 19th century estate which was the home of Gifford Pinchot, pioneer conservationist, founder and first Chief of the Forest Service, and Governor of Pennsylvania.

In FY 1983, the "National Friends of Grey Towers" was organized as a national nonprofit, educational foundation to work with the Forest Service to expand use of the Grey Towers facilities.

The accomplishments of this cooperative venture include:

- -- Initiating a user fee for visitors.
- -- Conducting the Pinchot-Yale University small seminar series on emerging resource issues.
- $\mbox{--}$  Assisting in coordination of conferences and lecture series on conservation.

A total of 18,500 people participated in programs at Grey Towers in FY 1985. Natural resource conservation and Pinchot's role in the conservation movement are the primary interpretive themes.



Artist's rendition of "Grey Towers," home of Gifford Pinchot, circa 1930, and site of the Pinchot Institute for Conservation Studies.

Decrease for 1987		1987 Base (Dollars	1987 Estimate in thousan	Decrease ds)
	Pinchot Institute for Conservation Studies \$ FTE	199 8		-199 -8
	A decrease of \$199,000 is propose specific funding for the Pinchot Funding is proposed from benefiti Service regular line item budget.	Institute for (	Conservation	Studies.
	Although no tours will be conduct visitors during regular work hour			
	Scheduled maintenance will not be awareness and environmental educa			ritage
	The following table illustrates t FY 1987 funding:	he comparison t	oetween FY 19	986 and
		1986 (Do	1987 <u>Base</u> lars in tho	1987 <u>Estimate</u> usands)
	Pinchot Institute for Conservation Studies Contributions from benefiting	n \$199	\$199	\$
	appropriations: Forest Research State and Private Forestry National Forest System Construction	17 18 251 7	17 18 251 7	18 18 249 7
	Total	\$492	\$492	\$292
Object class	Salaries and benefits	• • • • • • • •	-199	9
· · · · · · · · · · · · · · · · · · ·	Total		_100	3

-199

Total .....

#### Lake Tahoe (P.L. 96-586)

#### Objective

To control water pollution and mitigate soil erosion on State and Federal lands within the Lake Taboe Basin.

### Program description

Based on amounts appropriated for land acquisition within the Lake Tahoe Basin, funds are provided to implement sections 2(g) and (h) of P.L. 96-586. The funds are for soil erosion activities and control of water pollution on State and Federal lands within the Lake Tahoe Basin. In FY 1985, these special project funds were targeted at State, county, and private lands.

Decr	ease	
for	1987	

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousand	Decrease ls)
Lake Tahoe \$ FTE	1,461 2		-1,461 -2

A decrease of \$1,461,000 is proposed from the 1987 base.

This will discontinue special funding for soil erosion activities and water pollution control efforts that are associated with lands acquired by the Federal Government within the Lake Tahoe Basin and grants to local jurisdictions.

Object	class
informa	tion

Salaries and benefits	-55 -1,406
Total	_1 /61

### Geographic Breakdown of Forest Service Funding for State and Private Forestry FY 1985 - Actual (Dollars in thousands)

				Special	
Alabama	FPM	Fire	FM&U	Projects	Total
Alabama	\$ 133 0	\$ 278 192	\$ 184 50	\$ 0 0	\$ 595 242
Arizona	17	67	77	0	161
Arkansas	60	250	132	0	442
California Colorado	80 473	752 276	108 110	981 0	1,921 859
Connecticut	7,3	54	21	ŏ	75
Delaware	272	50	28	0	350
Florida	57 101	340 324	232 218	0	629 643
Georgia Guam	101 7	50	48	0	105
Hawaii	18	70	53	0	141
Idaho	45	205	77	0	327
Illinois Indiana	0 26	106 69	83 66	0	189 161
Iowa	18	56	26	ŏ	100
Kansas	21	156	97	0	274
Kentucky Louisiana	0 325	223 282	120 134	0	343 741
Maine	64	234	108	Ö	406
Maryland	619	150	85	0	854
Massachusetts	15 63	147 285	84 107	0	246 455
Michigan Minnesota	56	214	76	2,935	3,281
Mississippi	106	289	167	0	562
Missouri	41	267	125	0	433
Montana Nebraska	38 21	230 151	93 102	0 0	361 274
Nevada	22	122	49	477	670
New Hampshire	33	103	76	0	212
New Jersey New Mexico	303 33	187 133	60 80	0	550 246
New York	0	265	93	0	358
North Carolina	80	306	286	0	672
North Dakota Northern Marianas	16 4	63 0	62 20	0 0	141 24
Ohio	32	159	92	0	283
Oklahoma	28	154	89	0	271
Oregon	758	311	264	0	1,333
Pennsylvania Puerto Rico	1,043 0	292 50	71 83	0 0	1,406 133
Rhode Island	106	52	21	Ö	179
South Carolina	69	292	138	0	499
South Dakota Tennessee	18 52	212 261	79 145	0	309 458
Texas	419	242	165	ŏ	826
Utah	0	111	104	0	215
Vermont Virgin Islands	54 0	50 26	55 32	· 0	159 58
Virginia	75	292	246	ő	613
Washington	61	310	209	0	580
West Virginia Wisconsin	158 37	166 281	98 91	0 0	422 409
Wyoming	58	130	67	0	255
Washington, D.C	0	0	28	0	28
Total, States	6,135	10,337	5,614	4,393	26,479
S&PF Administration	12,297	3,402	5,142	579	21,420
Special Projects	1,230	0	0	0	1,230
Suppression on Federal Lands	9,163	0	0	0	9,163
Total Program	\$28,825	\$ 13,739	\$10,756	\$ 4,972	\$ 58,292

### Geographic Breakdown of Forest Service Funding for State and Private Forestry FY 1986 - Estimate (Dollars in thousands)

				Special	
	FPM	Fire	FM&U	Projects	Total
Alabama	\$ 330	\$ 269	\$ 184	\$ 0	\$ 783
Alaska	0	186	50	Ö	236
Arizona	16	65	77	0	158
Arkansas	58	242	132	Ō	432
California	72	724	108	984	1,888
Colorado	119	267	110	0	496
Connecticut	0	52	21	0	73
Delaware	165	48	28	0	241
Florida	55	329	232	0	616
Georgia	218	313	218	0	749
Guam	0	48	48	0	96
Hawaii	16	68	53	0	137
Idaho	30	198	77	0	305
Illinois	25	102	83	0	210
Indiana	28	67	66	0	161
Iowa	19	54 151	26	0	99
Kansas	18	151	97	0	266
Kentucky	39 <b>2</b> 58	215 273	120 134	0	374 665
Louisiana	70	273	108	0	404
Maine Maryland	623	145	85	ő	853
Massachusetts	15	142	84	0	241
Michigan	256	275	107	o o	638
Minnesota	54	207	76	2,982	3,319
Mississippi	160	279	167	0	606
Missouri	45	258	125	Ö	428
Montana	34	222	93	Ō	349
Nebraska	18	146	102	0	266
Nevada	17	118	49	477	661
New Hampshire	30	100	76	0	206
New Jersey	662	181	60	0	903
New Mexico	32	129	80	0	241
New York	57	256	93	0	406
North Carolina	77	296	286	0	659
North Dakota	16	61	62	0	139
Northern Marianas	0	0	20	0	20
Ohio	35	154	92	0	281
Oklahoma	27	149	89	0	265
Oregon	285	301	264	0	850
Pennsylvania	1,078	282	71	0	1,431
Puerto Rico	0 1.726	48 50	83 21	0	131
Rhode Island South Carolina	217	282	138	0	1,797 637
South Dakota	17	205	79	0	301
Tennessee	49	252	145	ő	446
Texas	485	234	165	ŏ	884
Utah	0	107	104	ŏ	211
Vermont	27	48	55	ŏ	130
Virgin Islands	0	25	32	Ö	57
Virginia	176	282	246	0	704
Washington	55	300	209	0	564
West Virginia	343	160	98	0	601
Wisconsin	51	272	91	0	414
Wyoming	18	126	67	0	211
Washington, D.C	0	0	28	0	28
Total, States	8,221	9,989	5,614	4,443	28,267
S&PF Administration	11,917	3,629	4,331	199	20,076
Special Projects	1,244	0	0	0	1,244
Suppression on Federal Lands	8,051	0	0	0	8,051
Total Program	\$29,433	\$ 13,618	\$ 9,945	\$ 4,642	\$ 57,638

### Geographic Breakdown of Forest Service Funding for State and Private Forestry FY 1987 - Estimate (Dollars in thousands)

				Special	
Alabama	\$ FPM \$ 0	\$ Fire	\$ FM&U \$ 0	Projects \$ 0	\$ Total
Alaska	0	0	0	0	ő
Arizona	0	0	0	0	0
Arkansas	0	0	0	0	0
California	0	0	0	0	0
Colorado	0	0	0	0	0
Connecticut	0	0	0	0	ő
Florida	0	Ö	Ō	Ō	0
Georgia	0	0	0	0	0
Guam	0	0	0	0	0
Hawaii Idaho	0	0	0 0	0	0
Idaho Illinois	0	0	0	0	0
Indiana	Ō	Ö	Ö	Ö	0
Iowa	0	0	0	0	0
Kansas	0	0	0	0	0
Kentucky Louisiana	0	0	0	0 0	0
Maine	0	0	0	0	0
Maryland	ŏ	ŏ	ŏ	ŏ	ő
Massachusetts	0	0	0	0	0
Michigan	0	0	0	0	0
Minnesota	0	0	0	2,800	2,800
Mississippi	0	0	0 0	0	0
Montana	0	0	0	0	0
Nebraska	ő	Ö	Ö	Ŏ	ő
Nevada	0	0	0	0	0
New Hampshire	0	0	0	0	0
New Jersey	0	0	0	0	0
New Mexico New York	0	0	0	0	0
North Carolina	0	0	0	0	0
North Dakota	Ō	0	Ö	Ö	0
Northern Marianas	0	0	0	0	0
Ohio	0	0	0	0	0
OklahomaOregon	0	0	0	0 0	0
Pennsylvania	0	0	0	0	0
Puerto Rico	ŏ	Ö	Ŏ	ŏ	ő
Rhode Island	0	0	0	0	0
South Carolina	0	0	0	0	0
South Dakota	0	0	0	0	0
Tennessee Texas	0	0	0 0	0 0	0
Utah	ő	ő	0	ő	0
Vermont	0	0	0	0	0
Virgin Islands	0	0	0	0	0
Virginia	0	0	0	0	0
Washington	0	0	0	0	0
Wisconsin	0	0	0	0	0
Wyoming	Ö	Ō	Ö	Ö	Ö
Washington, D.C	0	0	0	0	0
Total, States	0	0	0	2,800	2,800
S&PF Administration	12,019	3,400	0	0	15,419
Special Projects	1,250	3,400	0	0	1,250
Suppression on Federal Lands	5,402	0	ŏ	<u> </u>	5,402
Total Program	\$ 18,671	\$ 3,400	\$ 0	\$ 2,800	\$ 24,871
Total Frogram	Ψ 10,0/1	Ψ 3,400	<b>4</b> 0	Ψ 2,000	Ψ 24,0/1

# STATE AND PRIVATE FORESTRY PROGRAM AND FINANCING (in thousands of dollars)

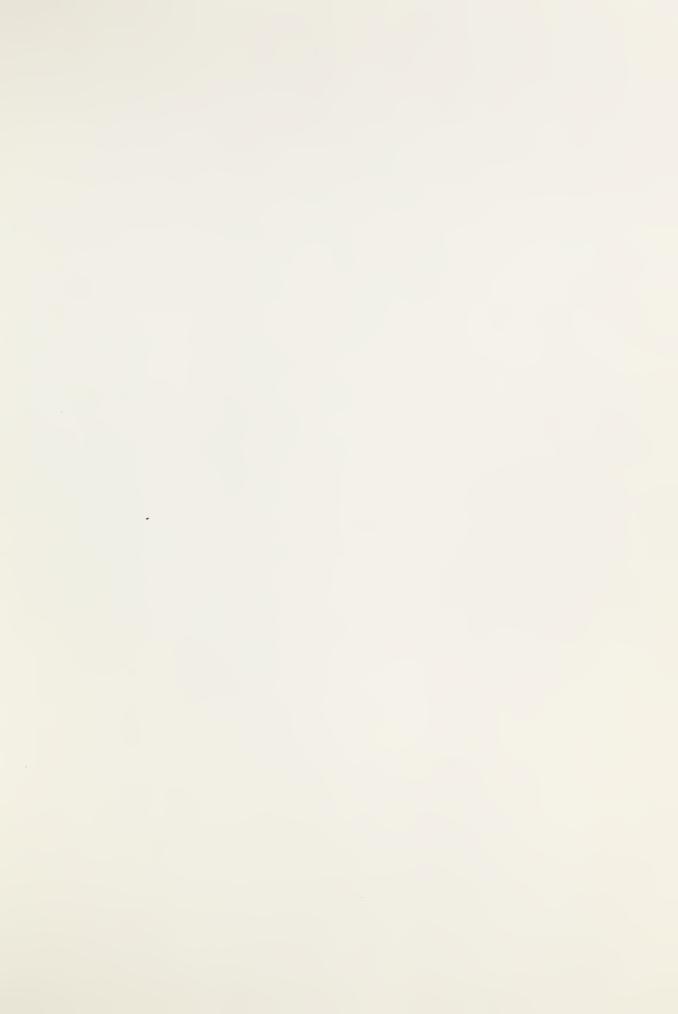
	Identification code: 12-1105-0-1-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
	Direct program: 1. Forest pest management 2. Fire protection 3. Forest management and	31,012 13,788	29,227 13,016	12,660 5,637
	utilization	11,296 5,266	10,665 4,670	4,618 2,022
	Total direct program Reimbursable program	61,362 4,197	57,578 4,560	24,937 1,740
10.00	Total obligations	65,559	62,138	26,677
	Financing:			
11.00 14.00 21.40	Offsetting collections from: Federal funds Non-Federal sources Unobligated balance available start	-3,988 -210	-4,332 -228	-1,653 -87
24.40	of year	-4,521	-1,506	-1,566
25.00	of year	1,506 -54	1,566	1,500
39.00	Budget authority	58,292	57,638	24,871
40.0001 40.0002 43.0001	Budget authority: Appropriation	58,292  58,292	57,986 -348 57,638	24,871  24,871
71.00 72.40 74.40	Relation of obligations to outlays: Obligations incurred, net Obligated balance, start of year Obligated balance, end of year	61,362 15,642 -19,521	57,578 19,521 -19,338	24,937 19,338 -14,142
90.00	Outlays	57,483	57,761·	30,133
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested: Budget authority Outlays Reduction pursuant to P.L. 99-177:	58,292 57,483	57,638 57,761	24,871 30,133
	Budget authorityOutlays	• • • •	-2,478 -2,151	-337
	Total: Budget authority Outlays	58,292 57,483	55,160 55,610	24,871 29,796

# STATE AND PRIVATE FORESTRY OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-1105-0-1-302	1985 actual	1986 est.	1987 est
	Direct obligations: Personnel compensation:			
11.1	Full-time permanent	14,239	13,403	10,543
1.3	Other than full-time permanent	1,809	1,711	1,332
11.5	Other personnel compensation	545	512	404
11.8	Special personnel service payments	8	7	6
11.9	Total personnel compensation	16,601	15,633	12,285
2.1	Personnel benefits: Civilian	2,150	2,025	1,591
13.0	Benefits for former personnel	79	74	58
21.0	Travel and transportation of persons	1,824	1,263	880
22.0	Transportation of things	255	177	123
23.1	Standard level user charges	1,096	1,178	988
23.2	Rental payments to others	45	31	22
23.3	Communications, utilities, and miscella- neous charges	813	563	392
24.0	Printing and reproduction	409	283	197
25.0	Other services	9,875	6,840	4,763
26.0	Supplies and materials	910	630	439
31.0	Equipment	684	474	330
32.0	Lands and structures	60	42	29
1.0	Grants, subsidies, and contributions	25,290	27,119	2,800
2.0	Insurance claims and indemnities	4	3	2
4.0	Refunds	78	54	38
9.0	Subtotal direct obligations	60,173	56,389	24,937
9.0	Reimbursable obligations	4,197	4,560	1,740
	ALLOCATION ACCOUNTS			
1.0	Grants, subsidies and contributions	1,189	1,189	
9.9	Total obligations	65,559	62,138	26,677
bliga	tions are distributed as follows: State and Private Forestry National Park Service Bureau of Land Management U.S. Fish and Wildlife Service	64,370 219 265 70	60,949 219 265 70	26,677  
	Bureau of Indian Affairs Total	635 65,559	$\frac{635}{62,138}$	26,677

# STATE AND PRIVATE FORESTRY PERSONNEL SUMMARY

Identification code: 12-1105-0-1-302	1985 actual	1986 est.	1987 est
Direct:			
Total number of full-time			
permanent positions	471	433	341
Total compensable workyears:			
Full-time equivalent employment	572	539	423
Full-time equivalent of overtime			
and holiday hours	21	20	16
Average ES salary	68,043	68,043	68,043
Average GS grade	11.79	11.79	11.79
Average GS salary	32,253	32,253	32,25
Average salary of ungraded positions	19,732	19,732	19,73
Reimbursable:			
Total number of full-time			
permanent positions	14	13	10
Total compensable workyears:			
Full-time equivalent employment	14	13	10
Full-time equivalent of overtime			
and holiday hours			
Average ES salary			
Average GS grade	12.98	12.98	12.98
Average GS salary	40,921	40,921	40,92
Average salary of ungraded positions			





This page left intentionally blank

# **National Forest System**

	1985 Actual	1986 Approp. Enacted to Date	Reduction	1987 Base in thous		Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Minerals area management \$ FTE	26,572 643	28,341 663	27,122	28,341 663		-2,316 -29	
Real estate management \$ FTE	20,836 477	20,844 473	19,948	20,844 473	19,845 461	-999 -12	-999 -12
Land line location \$ FTE	29,090 568	28,586 560		28,586 560		-5,575 -65	-5,575 -65
Maintenance of facilities \$	14,792 297	14,736 296	14,102	14,736 296	14,735 296		
Forest fire protection \$	156,591 4,072	158,240 4,090	151,436	158,240 4,090	147,225 3,906	-11,015 -184	
Fighting forest fires\$ FTE	62,227 (660)	994 	951 		1,000	+6 	-
Cooperative law enforcement \$ FTE	7,212 14	6,959 14	6,660	6,959 14	2,450 14	-4,509 	-4,509 
Forest road maintenance \$ FTE	65,406 1,194	64,647 1,185	61,867	64,647 1,185	49,270 1,040	-15,377 -145	-15,377 -145
Forest trail maintenance \$ FTE	9,256 272	9,968 290	9,539	9,968 290	8,365 260	-1,603 -30	-1,603 -30
Timber sales admin. and mgmt\$ FTE	194,702 5,478	181,545 5,300	173,739	181,545 5,300	171,092 5,135	-10,453 -165	-10,453 -165
Reforestation and stand	67,259 1,153			99,420 1,974	27,948 580	-71,472 -1,394	-71,472 -1,394

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars i	1987 <u>Base</u> n thousands	1987 Estimate	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Recreation use \$		103,307 2,625	98,865 	103,307 2,625	51,140 1,317		-52,167 -1,308
Wildlife and fish habitat management \$	36,726 838	38,694 887	37,030 	38,694 887		-4,914 -74	-4,914 -74
Range manage- ment\$ FTE	28,170 687	28,060 678	26,853 	28,060 678	27,819 671	-241 -7	-241 -7
Soil, water, and air management \$ FTE	31,808 680	31,846 678	30,477	31,846 678	28,787 641	-3,059 -37	-3,059 -37
General administration \$ FTE		262,114 5,472	250,843 	262,114 5,472	256,996 5,358	-5,118 -114	-5,118 -114
Subtotal \$		1,078,301 <u>1</u> / 25,185				-188,813 -3,564	-188,813 -3,564
FS/BLM interchange \$ FTE	 			 	5,000	+5,000	+5,000 
Total, NFS \$ FTE	1,111,548 24,698	1,078,301 <u>1</u> / 25,185			894,488 21,621	-183,813 -3,564	-183,813 -3,564

<sup>1/</sup> Includes \$30,000,000 in FY 1986 appropriation transferred from Reforestation Trust Fund (P.L. 99-190) and merged with this appropriation.

<sup>2/</sup> Includes a total decrease of \$45,077,000 of budget authority for the appropriated portion and \$1,290,000 in planned obligations. The planned obligations decrease because the \$30,000,000 transferred from Reforestation Trust Fund is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

Appropriation Summary Statement This appropriation provides the funds for the protection, management, and utilization of about one-third of all Federal land in the United States--191 million acres of the National Forest System (NFS) located in 44 States, Puerto Rico, and the Virgin Islands. The National Forest System is a national resource which generates over \$1 billion in receipts and continues to have major environmental and social value for millions of Americans. A significant portion of the receipts for goods and services from these lands is returned under current laws to the States for distribution to counties (around \$228 million in FY 1986).

The following examples typify the importance of NFS lands to the welfare of the American people.

- 1. Wood products. About 30 percent of the Nation's annual softwood sawtimber harvest comes from NFS lands. A continuous supply of softwood sawtimber is essential to produce the lumber and plywood needed to build homes and other construction, as well as other wood products. NFS lands contain over 51 percent of the Nation's standing softwood sawtimber inventory; thus they play a vital role in meeting the Nation's wood product needs in the upcoming decades. Enough wood is sold from NFS lands to build over one million homes annually. This well within the capacity of the National Forests to produce timber on a sustained yield basis in an environmentally sound manner. Reforestation and timber stand improvement activities are carried out to ensure the maintenance of a high level of productivity.
- 2. Coal, oil, gas, and other minerals. About one-fourth of the Nation's potential domestic energy resources are on (or under) NFS lands. These include about 50 billion tons of coal (12 billion of which have potential to be surface mined) in the National Forests in Montana, Utah, and Wyoming. Coal production from NFS lands during FY 1985 was estimated at 15.6 million tons. Coal production levels will increase significantly within the next few years as existing mines increase production and new mines start producing.

An estimated 33 million acres of NFS lands are under lease for oil, gas, geothermal, and other minerals. Mineral activity on National Forests and National Grasslands generated receipts of over \$159 million from rents, royalties, sales, and bonus bids in FY 1985 (including receipts deposited directly to the Department of Interior). This total includes \$19 million that resulted from adjusted windfall profit payments for previous years. The Forest Service responsibility is to encourage exploration and development of mineral resources in cooperation with Department of the Interior agencies and with consideration for other resource values.

Nearly 28,500 operating plans and lease applications were processed or administered in FY 1985.

3. Outdoor recreation. The National Forest System is "America's Playground," for each year it provides about 44 percent of all recreation use of Federal lands. In FY 1985, the use of the Forests for recreation amounted to approximately 225 million visitor days. This is equal to each American spending 12 hours on the National Forest System.

Among the facilities and sites available to them are:

- 99,500 miles of trails, including 4,815 miles of National Scenic Trails and 1,300 miles of National Recreation Trails. Part of the National Trail System is designated for people with physical disabilities
  - More than 4.334 campgrounds.
- Many of the commercial ski areas and popular cross-country ski areas, which are located wholly, or in part, on the National Forest System.
- Nine National Recreation Areas and all or part of 20 National Wild and Scenic Rivers.
- Thirty-two million acres (about 35 percent) of the National Wilderness Preservation System contained in 327 wilderness areas.

Fees paid for recreation-related uses of the National Forest System amounted to \$30.8 million in FY 1985. The Forest Service is exploring opportunities for increasing revenue from use so that more of the program cost is offset by receipts.

4. Livestock grazing. More than 14,000 ranchers and farmers pay for permits to graze 9.8 million animal unit months on the 105 million acres of grassland, open forests, and other forage-producing areas of the National Forest System. These individuals are highly dependent on NFS lands to complement the livestock ranching operation on their privately owned lands. Without NFS grazing, many of these livestock operations would not be economically sound.

Emphasis is placed on managing the permitted livestock use of 9.8 million animal units and enhancing water quality and quantity, soil productivity and stability, wildlife habitat, and aesthetics. The Forest Service will continue to provide forage to promote the economic stability of dependent livestock producers and rural communities at the FY 1986 level.

5. Hunting, fishing, and viewing. The National Forests and Grasslands are favorite places for millions of Americans to hunt and fish. In cooperation with the States, the Forest Service manages and improves wildlife and fish habitat to provide for both commercial and noncommercial uses. The freshwater lakes and streams of the National Forest System provide a bounty of fish, including trout, bass, and salmon. In FY 1985, 15.8 million fish user-days occurred on these lands. (A fish user-day consists of 12 hours.) A commercial salmon catch valued at over \$100 million is harvested annually. Annual salmon sport fishing is valued at \$23 million.

Hunters spend 14.6 million user-days in the field pursuing large game, such as elk, deer, and bighorn sheep; and small game, such as quail, grouse, and waterfowl. Bird watchers, photographers, and others engaging in nature study spend over 1.3 million user-days per year enjoying the wildlife and fish resources.

6. Soil, water, and air. One of the original purposes for establishing National Forests under the Organic Act was to secure favorable conditions of water flow. Much of the Nation's water supply flows from NFS lands located in the headwaters of the major river systems. In the 16 western States, where the water supply is sometimes critically short and may constrain future growth, about 55 percent of the total annual yield of water is from National Forest System lands.

A healthy watershed condition is critical to continued production of goods and services, including favorable water flows, from National Forest System lands. Watershed condition is a description of hydrologic function and soil productivity. Site-specific practices are used to ensure that desired watershed conditions are maintained or enhanced during management activities. Evaluations are made on the effectiveness of such practices.

Soil and water inventories are completed to provide information on the capability of these resources to support management activities. About 9,700,000 acres were inventoried in FY 1985. The Forest Service also conducts programs to improve the productivity of soil and water resources. Over 6,000 acres were improved in FY 1985.

The Forest Service has a dual role in complying with requirements of the Clean Air Act. It must manage the resources in a way that does not degrade air quality below established standards. It is also responsible for protecting air quality related values, particularly in 88 federally designated class I (wilderness) areas, from damage that would result from air pollution. The Forest Service reviewed 47 preconstruction permits in FY 1985.

- 7. Real estate and special uses. A wide variety of real estate activities are associated with managing the National Forest System. Such activities, essential to improving the efficiency of the Agency's land management activities, are:
- Provision for the needs of other ownerships. The gross area within the NFS unit boundaries includes about 39 million acres of land belonging to others, such as private individuals, corporations, or the various States.
- Land exchange to improve ownership patterns. Land is exchanged at fair market value to improve land ownership patterns. During the last three years, 413,440 acres of non-Federal land were acquired in exchange for 266,304 acres of Federal land.
- Land line location. Land lines are located to identify accurately legal boundaries between NFS and other ownerships. Accurate boundaries are needed to avoid encroachment between NFS and private lands. Trespassing onto Federal land is increasing by about 2,000 cases annually. In the past few years, about 6,000 miles of NFS property boundary lines were located, marked, and posted each year.
- Land purchase. The Forest Service purchases land principally for purposes of watershed protection, timber production, recreation use, wildlife management, and endangered species protection. Donations and the acquisition of partial interests, such as scenic easements, are growing in importance in the National Forest System.
- Transfers and interchanges. Transfer of jurisdiction between Federal agencies is made to improve land ownership patterns, simplify management, reduce costs, and improve service to the public.

- Rights-of-way acquisition. Each year, the National Forest System acquires about 1,000 miles of rights-of-way for access to Federal land. Most of the cases are settled through negotiation. Condemnation procedures are rarely needed.
- Title claims. During past years, an estimated 50,000 title claim cases have resulted from overlapping ownerships between Federal lands. Each year, the Forest Service resolves a portion of these claims cases through sale, interchange of title, or exchange. In FY 1985, 198 cases were resolved using the Small Tracts Act authority (P.L. 97-465). About 18,000 acres are involved in claims arising from early 1900 homesteading activities.
- Land status. Land status is the recordkeeping of the real estate managed by the National Forest System. This includes partial interest, encumbrances, and use restrictions. Accurate ownership status is essential to efficient management of the resources. Review of the 1,738 existing mineral withdrawal cases, covering 2,165,000 acres of Federal land, is a significant effort being undertaken in coordination with the Bureau of Land Management during FY 1985-89.
- Special uses. The special uses of the National Forest System are many and varied. With Federal and other governmental agencies, use is arranged through interagency agreements. For example, military operations are conducted on thousands of acres of NFS land each year. Others use Federal land by special use authorization. Approximately 50,000 nonrecreational special uses are authorized by permit, such as for television antenna sites, private roads, and utility lines. Over 2,000 hydroelectric development projects on or affecting NFS land have been proposed for licensing by the Federal Energy Regulatory Commission in the past 3 years. Approximately \$4.5 million was collected in special land use fees in FY 1985.
- 8. Transportation system and structures. The management of the National Forest System is supported by the world's largest network of roads, trails, and transportation facilities under a single jurisdiction—about 343,300 miles of permanent roads at the close of FY 1985. In recent years, 5,500 to 7,000 miles of roads and more than 80 bridges are constructed or reconstructed annually in the National Forest System; the majority by timber purchasers.

The Forest Service manages approximately 12,000 buildings, about half of which are 40 or more years old.

#### Authorities

The Act of June 4, 1897, Organic Administration Act of 1897, as amended (16 U.S.C. 473-478, 479-482, 551). Section 24.

Administrative, protection, and management of the National Forests.

(05-96) 12-1106 302 SAGR HAGR Such sums as appropriated; no expiration date.

P.L. 68-575, The Act of March 3, 1925, as amended (16 U.S.C. 555). Section 5.

Such sums as necessary, not to exceed \$50,000 per fiscal year; no expiration date.

- P.L. 75-210, Title III, The Bankhead-Jones Farm Tenant Act of July 22, 1937, as amended (7 U.S.C. 1010, 1011). Sections 31 and 32.

  Land acquisition, exchange, and authorities to correct maladjustments for land utilization purposes.

  Such sums as necessary; no expiration date.
- P.L. 78-412, Department of Agriculture Organic Act of September 21, 1944 (7 U.S.C. 2250). Section 703. Erect, alter, and repair buildings necessary to carry out authorized work.

Section 205 (16 U.S.C. 579(a)).

Procure and provide aerial operations and facilities, including equipment and structures.

- P.L. 81-348, Act of October 11, 1949 (Anderson-Mansfield Reforestation and Revegetation Act) (16 U.S.C. 581j). Sections 1 and 2.

  Reforestation and range revegetation.

  (05-96) 12-1100 302 SAGR HAGR
  Such sums as needed; no expiration date.
- P.L. 84-979, The Act of August 3, 1956 (7 U.S.C. 428a). Section 11. Land or interests in land by purchase, exchange, or otherwise. Such sums specified by annual appropriation; no expiration date.
- P.L. 88-657, Act of October 13, 1964, National Forest Roads and Trails Systems Act (16 U.S.C. 532-538). Sections 1-7.

  Construction and maintenance of forest roads and trails.

  (05-96) 12-1103 302 SEPW HPWT SENR HIIA

  Such sums as appropriated; no expiration date.
- P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a). Section 1. Erection and leasing of buildings, structures, and land from non-Federal sources. Such sums as appropriated; no expiration date.
- P.L. 90-543, National Trails System Act, as amended by P.L. 98-11 (16 U.S.C. 1241 et seq.). Section 10. Construction and maintenance of trails. Assistance to volunteer organizations. Such sums as appropriated; no expiration date.
- P.L. 90-583, Carlson-Foley Act of 1968 (43 U.S.C. 1241-1243). Section 3.

Rangeland management; noxious farm weed control. Such sums as appropriated; no expiration date.

P.L. 92-421, Act of September 18, 1972, Supplemental National Forest Reforestation Fund Act (16 U.S.C. 576c-e).

Reforestation and revegetation of National Forest System lands.

Authorization: Section 1; \$65,000,000 annually.

Expires September 30, 1987.

P.L. 93-378, Forest and Rangeland Renewable Resources Planning Act, August 17, 1974, as amended (16 U.S.C. 1601 note). Sections 2-5.

Forest resources planning and evaluation.

(05-96) 12-1106 302 SAGR HAGR

Such sums as appropriated; no expiration date.

P.L. 94-588, National Forest Management Act of 1976, October 22, 1976 (16 U.S.C. 472(a-i) & 1601)). Sections 1-14. Amends Forest and Rangeland Renewable Resources Planning Act of 1974. (05-96) 12-1106 302 SAGR HAGR

(05-96) 12-1106 302 SAGR HAGR
Such sums as appropriated; no expiration date.
Reforestation - \$200,000 annually (16 U.S.C. 1601(d)(3)).

P.L. 95-495, Act of October 21, 1978 ( 92 Stat. 1649). Sections 5(d),
6(c)(1-2), 6(d)(1-2), 11(f), 18(e), and 19.
 Establishes the Boundary Waters Canoe Area Wilderness and Boundary
Waters Canoe Area Mining Protection Area.
 Authorization: Section 6(d)(1) \$8,000,000 for resource
 management on the Superior National Forest.
 Sections 5(d), 11(f), and 18(e)--such sums as necessary.
 Section 6(d)(1) expires at end of FY 1990.

P.L. 96-586, Act of December 23, 1980. Land acquisitions in the Lake Tahoe Basin. Section 2(h). Prevent, control, and mitigate water pollution, and manage National Forest System lands acquired within the Lake Tahoe Basin. (05-96) 12-1106 SENR HIIA

Authorization is 5 percent of the Land and Water Conservation Fund appropriation for Lake Tahoe Basin land acquisitions each year. Expires when all Clark County, Nevada, land specified in the Act is sold by the U.S. Department of Interior, Bureau of Land Management.

P.L. 97-465, Act of January 12, 1983 (16 U.S.C. 521c).
To authorize the conveyance of lands and other purposes.
Land exchange and sales.
(05-96) 12-1106 SENR HAGR
Such sums as necessary, no expiration date.

P.L. 98-478, Act of October 16, 1984, Federal Timber Contract Payment Modification Act (16 U.S.C. 619). Allow buy-out of timber contracts, waive special-use fees for non-profit permittees, and redetermine Alaska contract rates. (05-96) 12-1106 302 SENR HAGR

Authorization: Such sums as necessary; no expiration date.

### Minerals Area Management

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Leasable minerals \$ FTE	12,506 235	14,046 258	13,442	14,046 258	13,056 249	-990 -9
Locatable minerals \$ FTE	9,390 300	9,560 306	9,149	9,560 306	8,819 294	-741 -12
Common variety minerals \$ FTE	2,918 76	2,251 59	2,154	2,251 59	2,708 65	+457 +6
Geology\$ FTE		2,484 40	2,377	2,484 40	1,442 26	-1,042 -14
Total\$ Cases FTE	26,572 28,488 643	28,341 23,998 663	27,122  	28,341 23,998 663	26,025 23,480 634	-2,316 -518 -29

#### General

Satisfying the Nation's need for raw materials to support economic growth depends on domestic mineral and fuel production from private and Federal lands. Private industry responds to these production needs and, where National Forest System (NFS) lands are involved, the Forest Service guides and facilitates this activity.

Federal mineral and energy resources are categorized as leasable and locatable minerals, and as common varieties of mineral materials. Depending on the category, the Forest Service evaluates applications or proposals by industry to explore and develop energy and mineral resources on NFS lands. Based on these evaluations, and in cooperation with the Department of the Interior (which has the primary responsibility for managing mineral and energy resources on Federal lands), the Forest Service develops procedures and requirements for minerals activities in coordination with other resource values and uses.

The Forest Service's minerals program also issues and administers special-use permits (e.g., roads and pipelines) for uses which are part of mineral development projects on NFS lands.

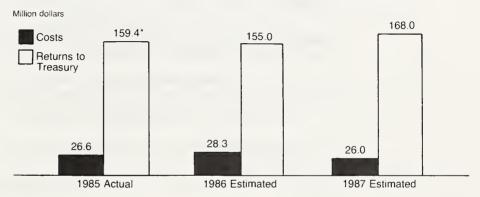
In the Department of the Interior, the Bureau of Land Management, Bureau of Mines, Office of Surface Mining, and Geological Survey cooperate in this program. A June 1984 agreement between the Forest Service and Bureau of Land Management streamlined pre-leasing preparation of National Environmental Policy Act documents and improved consistency in applying mineral lease stipulations, resulting in increased efficiency in processing minerals leasing proposals.

The proposed level of funding provides for processing and administering 23,480 mineral cases. However, the number of new mineral cases in a given year is a function of many factors, including mineral prices, overall economic conditions, and industrial activity. The uncertainties associated with predicting these factors make it difficult to estimate future caseloads accurately.

The FY 1985 ending inventory was 3,533 unprocessed cases. As of November 1985, this inventory included 1,215 unprocessed cases in areas where the Forest Service is precluded from taking action. These include areas being considered for wilderness, which have been restricted under appropriation acts since FY 1983, or areas for which wilderness studies are not yet complete. At the proposed FY 1987 level of funding, the inventory is expected to be 5,000 to 7,000 unprocessed cases.

Returns to the U.S. Treasury from mineral and energy rents, royalties, sales, and bonus bids on NFS lands exceed 500 percent of the minerals and geology program costs each year.

### Minerals and Geology Program Costs and Returns to the Treasury



\*Includes a \$19 million adjustment related to windfall profit tax adjustments for prior years.

Geologic information is used to support many Forest Service programs and specific activities, including land and resource management planning, timber-sale layout and road construction, mined-land reclamation, watershed management and protection, recreation development, and other facilities construction. The geology program also provides information for the assessment of mineral resources and for evaluating, managing, and protecting ground water resources and underground spaces on NFS lands.



Hardrock mining in northern Idaho.



Wildcat well-site in rough mountainous terrain.



Surface mining and ancillary facilities on National Grasslands.

### Leasable Minerals

#### Objective

To make available the leasable energy and mineral resources from National Forest System lands. To work with the Bureau of Land Management and the Office of Surface Mining to administer the associated exploration, development, production, and reclamation with consideration for multiple use resource values.

### Program description

Leasable minerals include energy resources (oil and gas, geothermal, coal) and other minerals (phosphate, sodium, potassium), both acquired and public domain, and acquired hardrock minerals (lead, silver, etc.). The leasable minerals program involves:

- Ensuring that mineral exploration, development, production, and reclamation activities comply with applicable laws and regulations.
- Acting on lease applications and forwarding recommendations/consent to the Bureau of Land Management with stipulations for protecting surface resources.
- Determining terms and conditions to be included in operating plans forwarded to and approved by the Bureau of Land Management.
  - Ensuring protection of surface resources.
- Monitoring activities for compliance with approved operating plan requirements.
- Administering special-use permits associated with leasable minerals.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousa	<u>Decrease</u> nds)
Leasable minerals \$ FTE	14,046	13,056	-990
	258	249	-9

A decrease of \$990,000 is proposed from the 1987 base.

The FY 1987 program will accomplish the projected work activities, provide resource coordination, and protect surface resources. The caseload for FY 1987 is expected to be 13,116 cases, 293 fewer cases than the planned accomplishment of 13,409 cases in FY 1986.

Salaries and benefits	-290 -108 -166 -183
Other contractual services	-243
Total	-990

#### Locatable Minerals

#### Objective

To provide access to locatable minerals to enhance the industrial and economic strength of the United States. To encourage industry proposals for mineral development on public domain lands in the NFS. To develop reasonable and effective measures to protect surface resources and values.

## Program description

Locatable minerals are hardrock minerals (gold, silver, lead, zinc, etc.) occurring in the public domain and disposed of by the Federal Government under the U.S. Mining Law of 1872. Anyone may file a claim for the mineral located and obtain necessary operating approvals for development and mining. The locatable minerals program involves:

- Complying with the U.S. Mining Law of 1872 and applicable regulations.
  - Ensuring protection of surface resources.
  - Processing operating plans.
- Monitoring mining activities for compliance with approved operating plan requirements.
  - Examining validity of mining claims.
- Administering special-use permits associated with operations on mining claims.



Before Reclamation



After Reclamation

Decrease for 1987		1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousa	Decrease nds)
	Locatable minerals \$ FTE	9,560 306	8,819 294	-741 <b>-</b> 12
	A document of \$741,000 do no		. +h- 1007 h	

A decrease of \$741,000 is proposed from the 1987 base.

The FY 1987 program will provide for processing and administering an estimated 6,841 locatable mineral cases, 245 fewer cases than the planned accomplishment of 7,086 in FY 1986, and represents a lower level of activity.

The proposed program will facilitate the search for and production of locatable minerals, including many precious metals and minerals of strategic importance to the United States.

The FY 1987 program provides for resource coordination and protection of surface resources.

Object class information	Salaries and benefits	-387 -73 -84 -75 -122
	Total	-741

#### Common Variety Minerals

#### Objective

To determine the availability of mineral materials. To provide for their extraction and use consistent with sound land and resource management practices.

### Program description

Mineral materials include common varieties of gravel, sand, stone, and materials used in the construction of highways and other facilities. These minerals on NFS lands are sold outright, granted free of charge to qualified users, or used to build and maintain Forest Service road systems and other facilities. The mineral materials program involves:

- Complying with laws and regulations.
- Administering sales and free-use disposals.
- Inventorying the mineral materials resource for in-Service use.
- Conducting appraisals.
- Developing and processing operating plans.
- Protecting surface resources.
- Monitoring operations, including reclamation.
- Administering special-use permits associated with disposal of mineral materials.

#### Increase for 1987

	1987 <u>Base</u> (Dol	1987 Estimate lars in thousan	<u>Increase</u>
Common variety minerals \$ FTE	2,251	2,708	+457
	59	65	+6

An increase of \$457,000 is proposed from the FY 1987 base.

The FY 1987 program will provide for the activities associated with management of mineral materials, including common varieties of gravel, sand, and stone. These activities include resource inventories and appraisals, disposal administration, operating plan processing and review, resource coordination, and protection of surface resources.

An estimated 3,523 cases will be processed in FY 1987, an increase of 20 cases over the planned accomplishment of 3,503 cases in FY 1986. The activity level anticipated is about the same, but the costs per case are higher. The increase in unit costs is consistent with an emphasis to improve management of this resource, emphasize adherence to health and safety standards, and acknowledge the importance of resource planning and operations safety.

Salaries and benefits	+193 +55 +62 +56
Other contractual services	+91
Total	+457

### Geology Program

#### **Objective**

To identify and evaluate geologic conditions and hazards that affect the safety and cost effectiveness of Forest Service activities. To provide and interpret geologic and minerals resource information for land management planning, environmental protection, mined-land reclamation, and other agency or State cooperative management programs.

## Program description

This program provides geologic information and support services for all Forest Service land and resource management activities. These services include:

- Providing geologic support personnel to gather, interpret, and present information about geologic conditions and mineral resources for resource evaluation and land management planning.
- Gathering, interpreting, and reporting geologic factors that affect the design, construction, and maintenance of Forest Service facilities. This includes such work as landslide investigations, foundation studies, and investigations to locate construction materials.
- Gathering and interpreting geologic information needed to develop and protect such resources as ground water, underground spaces, and minerals.

### Decrease for 1987

	1987 <u>Base</u> (Doll	1987 Estimate ars in thousa	Decrease nds)
Geology\$ FTE	2,484	1,442	-1,042
	40	26	-14

A decrease of \$1,042,000 is proposed from the FY 1987 base.

The FY 1987 program of \$1,442,000 will facilitate completion of necessary geological work activities and enable the Forest Service to conduct high-priority technical geological evaluations. These are done to assess geologic conditions with relatively high risk to the safety, efficiency, and economy of engineering projects. The assessments include landslide stability studies, subsurface investigations of soil and water, and mineral surveys. These assessments are essential for the protection of surface resources during the development of minerals and engineering projects.

The decrease in the program compared to FY 1986 is consistent with lower activity levels in resources areas served by this program and with efforts to focus work on high-priority situations.

Salaries and benefits	-455 -91 -139
Supplies, materials, and equipment  Other contractual services	-154 -203
Total	-1 042

### **Real Estate Management**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Land exchange and adjustment \$	6,522	5,427	5,194	5,427	5,102	-325
	147	133		133	129	-4
Land classification, status, and planning \$ FTE	1,324	2,169	2,076	2,169	1,637	-532
	24	34		34	28	-6
Special uses \$ FTE	7,339	7,499	7,176	7,499	7,357	-142
	205	205		205	203	-2
Geometronics \$ FTE	5,651 101	5,749 101	5,502 	5,749 101	5,749 101	
Total \$ FTE	20,836 477	20,844 473	19,948	20,844 473	19,845 461	-999 -12

### General

This program provides for efficient real estate management of National Forest System (NFS) lands while protecting the resources and securing compliance with applicable air and water quality standards. Activities include land exchange and adjustment, land classification and status, title claims, landownership planning, special uses, and geometronics or base series mapping.

### Land Exchange and Adjustment

#### Objective

To improve cost effectiveness of resource management in the NFS by improving the landownership patterns, thus reducing management costs and facilitating development of adjacent non-Federal lands.

### Program description

The land exchange program is a way to improve landownership patterns with a minimal impact on the Federal budget and results in more efficient landownership patterns that reduce administrative costs of both Federal and non-Federal lands. Cost savings occur by more efficient resource administration and road management; a reduced need for locating, posting, and maintaining property boundaries; and resolution of claims. Consolidation reduces the need to purchase land to meet specific management needs.

Land exchanges benefit the private sector and local governments by facilitating the development and expansion of communities and businesses on lands that are better suited for other than Federal uses. All exchanges are made with willing owners on an equal value fair—market basis.

In the western States, many land exchanges involving large acreages have occurred with State and local governments, railroads, timber and mining companies, and ranchers. The properties often involve alternate "checkerboard" landownership patterns resulting from 100 year old land grants. Exchanges are a means of solving problems caused by fragmented ownership. Many exchanges assist local communities through exchanging isolated tracts of non-Federal land for Federal land adjacent to expanding communities. Recent Wilderness Acts include provisions directing acquisition of non-Federal land by exchange.

In the last three years, 416 exchanges were approved. As a result, 413,440 non-Federal acres have been acquired in exchange for 266,304 acres of Federal land, with a total value of \$315 million.

In FY 1985, 137 exchanges reduced NFS boundaries by 1,530 miles, representing a savings of \$8.5 million in land line location costs. This savings greatly exceeds the \$6.5 million cost of the exchange program in FY 1985. Such savings have amounted to \$25 million over the past three years. Additional savings result from the reduced need for rights-of-way, reduced special-use administration, resolution of trespasses, and other factors related to a more efficient landownership pattern.

Reducing the miles of Federal property lines lessens the costs of property line location and maintenance and the risk of trespass. Completion of the recommended program for FY 1987 should result in land line survey costs savings of more than \$5,000,000.

Decr	e	ase	
for	1	007	1

1987	1987	
Base	Estimate	Decrease
(D(	ollars in thousand	157

Land exchange				
and adjustment .	\$	5,427	5,102	-325
	FTE	133	129	-4

A decrease of \$325,000 is proposed from the 1987 base. The FY 1987 program will emphasize acquisition of land in wilderness. Cash equalization payments will be made from benefiting functions.

The program will also allow a moderately active exchange program aimed at reducing administrative costs for management of the National Forest System. Emphasis will be on large acreage exchanges that will significantly reduce administrative costs in future years.

A total of 65,360 acres will be exchanged and adjusted in FY 1987, 8,630 fewer acres than the 73,990 acres exchanged in FY 1986. This exchange level represents 3 percent of the 2,150,000 acres currently involved in active exchanges or identified as suitable and available for exchange.

Salaries and benefits	-127
Travel	-22
Rent, communications, and utilities	-42
Printing and reproduction	-10
Supplies, materials, and equipment	-42
Other contractual services	-82
Total	_325

### Land Classification, Status, Title Claims, and Planning

#### Objective

To plan adjustments of landownership for efficient resource management. To maintain landownership title records to ensure proper administration of lands subject to reservations, outstanding rights, mineral withdrawals, other conditions of title, and laws that direct or affect land management. To provide an automated retrieval system of land title information. To resolve title disputes.

# Program description

Of the 191 million acres of NFS land, 28 million acres were acquired and 163 million acres were reserved from the public domain. These lands, assembled over many years, consist of thousands of individual tracts, each having an individual ownership title file. This record of ownership information must be actively maintained in order to guide resource management as to title restrictions, reservations, other conditions of title, and legislative direction in over 500 laws that affect management of NFS land.

Accurate, current ownership records must be readily available for resource management. Precise records are essential for such situations as the conveyance of approximately 2 million acres of NFS lands in Alaska to other public and private ownerships, involving hundreds of individual tracts. By 1990, private ownership of millions of acres of reserved mineral rights will expire and ownership will pass to the United States.

Over 50,000 title claim cases have resulted from overlapping ownerships between Federal lands and the 39 million acres of non-Federal lands within the NFS boundaries. In FY 1985, 198 cases were resolved using the Small Tracts Act authority. About 18,000 acres are involved in claims arising from the early 1900s homesteading activities. Unresolved title claim cases are increasing at a rate of about 500 cases per year.

Resolution of title claims protects the capital investment in NFS lands. Planning for landownership adjustments in areas with intermingled ownership on scattered land units results in more efficient management.

Each year, the Forest Service in a joint effort with the Bureau of Land Management reviews 20 percent of the 2,165,000 acres of NFS lands withdrawn from mineral entry. This project revokes unnecessary or obsolete withdrawal orders, as mandated by the Federal Land Policy and Management Act of 1976 (P.L. 94-579), and will be completed in 1989.

Decr	ease
for	1987

1987	1987	
Base	Estimate	Decrease
(D	ollars in thousand	ds)

Land classification, status, and planning ... \$ 2,169 1,637 -532 FTE 34 28 -6

A decrease of \$532,000 is proposed from the 1987 base. The FY 1987 program will allow completion of 733 title claim cases, compared to 4,295 cases in FY 1986.

This program also will allow mineral withdrawal reviews on 1,208 sites and resolution of 17 encroachment and title claim cases in litigation (resolution in the courts of disputes over title, usually involving Indian claims, innocent encroachments, and willful trespass cases on NFS lands), including some through use of the Small Tracts Act (P.L. 97-465) authority.

Land status records will be maintained. At this level of funding, minor delays should be expected for those projects requiring land status information.

Salaries and benefits	-191
Travel	-38
Rent, communications, and utilities	-72
Supplies, materials, and equipment	-89
Other contractual services	-142
Total	-532

### Special Uses (Nonrecreational)

#### Objective

To authorize the use of NFS lands by Federal, State, and local agencies; private industry, including utilities; and individuals. To facilitate the development of hydroelectric power on NFS lands by developing mandatory terms and conditions for licensing projects.

### Program description

The workload for the program depends on the number of external applications received for use of NFS lands. (Authorizations for use are in 13 specific Acts of Congress listed in 36 C.F.R. 251.53.) Processing of applications involves preparation of environmental reports, field examination of proposed sites, draft of appropriate permit terms and conditions, and determination of fees to be charged. Easements are issued for such uses as utility and road rights-of-way.

Once a permit or easement is issued, inspection and monitoring ensure its terms are met. Periodic evaluations are required to ensure fees are appropriate.

Approximately \$4.5 million was collected in land use fees in FY 1985. About 50,000 nonrecreational use permits are in force, over 10,000 of which are for utility rights-of-way.

In FY 1987, 5,600 applications are expected, most of which will be energy related. Processing and administering special-use applications for mineral activities have been funded under the minerals program since FY 1983.

A major workload is the processing of hydroelectric development proposals in the National Forests. These proposals require extensive analysis and impact review, including coordination with the developer and with Federal, State, and local agencies. As a result of a 1984 Supreme Court decision, the Forest Service is now required to develop mandatory terms and conditions for project licensing. The review of hydroelectric development proposals and administration of licensed projects will be funded from benefiting funds and activities.

Decr	ease
for	1927

	1987 <u>Base</u> (Doll	1987 Estimate ars in thousa	Decrease nds)
Special uses\$	7,499	7,357	-142
	205	203	-2

A decrease of \$142,000 is proposed from the 1987 base.

The FY 1987 program will allow for the administration of 29,020 permits. The remaining 20,980 permits includes those that require a minimal degree of administration, including cases having little or no environmental, public health, or safety impacts.

Approximately 4,000 of the expected 5,600 special use applications will be processed. Costs will be augmented by collection agreements with applicants and permit holders to provide support for processing applications and monitoring of construction.

Fees will be reviewed and adjusted to market value on approximately 2,100 permits (fee reviews are scheduled every 5 years), with emphasis on the most cost-effective reviews. Fees established in FY 1982 and earlier for about 24,000 permits will be continued.

Emphasis on establishing fee schedules for broader geographical areas, to streamline the process for fee reviews, will continue. This should result in increased efficiency and more uniformity in fees charged for similar uses.

Salaries and benefits	-62
Rent, communications, and utilities	-21
Supplies, materials, and equipment	-17
Travel	-9
Other contractual services	-33
Total	-142

#### Geometronics

#### Objective 0

To provide essential maps and related products.

### Program description

The geometronics program produces base series maps to support resource management needs. There are two standard base series map products--primary and secondary. Revision schedules for both series vary from 7 to 10 years.

Primary base series maps are  $7\frac{1}{2}$  minute quadrangle maps at 1:24,000 scale (2.64" = 1 mile). These are the principal work maps for field personnel and the base for inventory and display of resource and other thematic information.

Secondary base series maps are 1:126,720 scale ( $^{1}2"=1$  mile), constructed to cover entire forests or major divisions of a forest. The main use of this series is for sales to forest visitors under a national map sales program.

The Forest Service's mapping program exists to support NFS management. As such, the program is functional and directed at displaying resources, facilities, and management data on existing standard cartographic bases.

Map production has been centralized at the Geometronics Service Center (GSC) in Salt Lake City, Utah, to produce the thematic layers required by all disciplines (such as transportation systems, land status, and administrative sites).

Regional field units provide support in aerial photography, field edit, and publication. They produce special resource thematic maps according to local staff needs.

The program also includes developmental work to increase efficiency in the mapping process. Examples include:

- Software development to incorporate automated mapping procedures into the base series program and to generate special purpose maps from standard data sets.
- Development of a data base to catalog GSC generated data for agency use.
- Software development to utilize other agency digital data to support the mapping program.
- Development of an automated digitizing system to collect digital terrain data to support the orthophoto program.

The Forest Service cooperates with other Federal agencies in various mapping and charting activities. The Federal Interagency Coordinating Committee on Digital Cartography is charged with coordinating digital cartographic activities within Federal agencies to avoid duplication and waste. The objective is to develop and adopt, for use by all Federal agencies, common standards of content, format, and accuracy for digital cartographic base data to increase their interchangeability and potential for future use.

Current cooperative efforts include:

- Base series mapping program. The Forest Service uses Geological Survey 7½ minute quadrangles for a more current map base to display thematic information. FY 1986 cost-share is approximately \$209.000 for the Geological Survey to revise 209 guadrangles.
- National high altitude photography program. The Forest Service has been active in this program since it began in FY 1979. FY 1986 contribution to this program is \$350,000. The program provides coverage of NFS lands on a 6-year cycle. This photography is a valuable tool for photointerpretation of resource information, revision of base series maps, and generation of orthophotos for displaying thematic information. (Orthophotos, rectified to remove scale distortions, show correct distances.)
- Digital elevation model (DEM) program. The Forest Service has adopted the DEM as its standard digital terrain file. Since this is a Geological Survey standard file, it allows for the exchange of DEM data through an interagency agreement. The agreement will reduce the cost of completing DEM coverage over NFS lands by 35 percent. Approximately 200 quadrangles will be exchanged in FY 1986, the initial year of the agreement. An annual exchange of 700 quadrangles of DEM data is proposed for FY 1987 and subsequent years.

No change from 1986

### Land Line Location

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Land line location \$  Miles FTE	29,090	28,586	27,357	28,586	23,011	-5,575
	5,945	4,623		4,623	3,955	-668
	568	560		560	495	-65

#### Objective

To locate, mark, and post property lines between National Forest System (NFS) land and other property before instituting resource management activities.

### Program description

The proper location of Forest Service property lines is a prerequisite to construction and resource management activities adjacent to property owned by others. The land line location program identifies these legal property boundaries.

Where property boundaries are not identified, resource management activities cannot proceed; for example, a timber sale cannot proceed because of the risk of cutting non-Federal timber. Encroachment by private landowners adjacent to NFS lands occurs at a rate in excess of two cases per mile where property lines have not been marked.

The program has three primary activities: initial location, marking, and posting of boundary lines; reestablishment of boundaries lost in the absence of land line maintenance; and periodic land line maintenance.

In a limited number of cases where costs of needed land line location surveys would exceed the purchase costs of specified inholding tracts, the Chief of the Forest Service or a delegated representative may approve the purchase, from willing sellers, of such inholdings with funds from the land line program. Boundaries reduced through such acquisitions are counted as though surveyed.

Some surveys of NFS lands are done by the Bureau of Land Management (BLM) and financed by the Forest Service. Funds are reimbursed to BLM under an interagency agreement for its survey costs, which averaged over \$1.5 million annually for the past few years.

Decr	ease
for	1987

1987	1987	
Base	Estimate	Decrease
(Do	llars in thousa	ınds )

Land line location .... \$ 28,586 23,011 -5,575 FTE 560 495 -65

A decrease of 5,575,000 is proposed from the 1987 base. This program will allow the accomplishment of 3,955 miles of land line location, 668 miles fewer than the 4,623 miles in FY 1986.

The proposed funding level of \$23,011,000 is necessary to support a timber sale program of 10 billion board feet, including 2.6 billion board feet of reoffer timber in FY 1987, and to provide the support necessary to other resource programs. In FY 1987, 2,795 miles of the land line location program will be in support of the timber sales program. The remaining 1,160 miles will be in support of minerals, recreation, and other resource programs.

Emphasis will be given to establishing boundaries in rough and remote terrain or areas where deterioration remains. Boundaries involving fraudulent surveys and trespass cases will also be surveyed.

Salaries and benefits	-1,621
Travel	-203
Transportation of things	-59
Rent, communications, and utilities	-231
Supplies, materials, and equipment	-671
Land and structures	-49
Other contractual services	-2,741
Total	-5,575

#### Maintenance of Facilities

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Maintenance of						
facilities\$	14,792	14,736	14,102	14,736	14,735	-1
FTE	297	296		296	296	

#### Objective

To maintain and make minor improvements in facilities used for fire and general administrative purposes.

### Program description

Fire and general administrative facilities support National Forest System (NFS) activities. Facility types include administrative sites, offices, service and storage buildings, and associated water, sanitation, and electrical systems. This program also maintains airports, heliports, fire lookouts, and fire management facilities. Employee quarters facilities are maintained from a permanent appropriation, Operation and Maintenance of Quarters.

The Forest Service uses about 11,200 permanent buildings with 12.8 million square feet, primarily at Ranger District and work center locations, in managing NFS lands. About 46 percent of these buildings were constructed before 1940, 37 percent between 1945 and 1965, and the remaining 17 percent since 1965. Most were designed and constructed with a structural and functional life expectancy of 30 to 35 years. Extensive maintenance is needed as facilities exceed this age.

1007 1007

Decr	ease
for	1987

	Base	Estimate	Decrease
	(Dol	lars in thousar	nds)
Maintenance of facilities $\$$ FTE	14,736	14,735	-1
	296	296	

A decrease of \$1,000 is proposed from the 1987 base.

This program will be maintained at the FY 1986 level. In FY 1987, unsafe and hazardous conditions will continue to receive high priority. Minimal recurrent maintenance (painting, roofing, water and sanitation systems) will be done. The maintenance backlog will continue to increase.

Object	c1	ass
informa	ıt.i	on

Other contractual services	-1
Total	-1

### **Forest Fire Protection**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA <u>Reduction</u> (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Fire presuppression \$		144,179 3,790	137,980	144,179 3,790	141,930 3,773	-2,249 -17
Fuels management \$ FTE	17,299 356	14,061 300	13,456	14,061 300	5,295 133	-8,766 -167
Total\$ FTE	156,591 4,072	158,240 4,090	151,436	158,240 4,090	147,225 3,906	-11,015 -184
Fuels treatment Acres	266,731	284,500		284,500	48,376	-236,124

#### General

The forest fire protection (FFP) program protects life, property, and natural resources on the 191 million acres of National Forest System (NFS) lands. An additional 20 million acres of adjacent State and private lands are also protected through fee or reciprocal protection agreements.

The total cost of fire protection on NFS lands is the sum of FFP and fighting forest fires (FFF) expenditures, plus the net resource value change (NRVC; damage less benefits) as a result of wildfires. Fighting forest fires is discussed in the next section (following FFP).

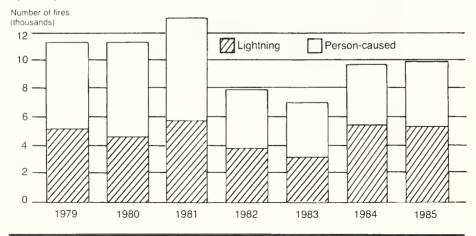
The FFP program is a responsive and cost effective program of wildfire presuppression and fuels management activity, proportionate to the threat to life and property, public values, and management objectives.

The following charts show the number of acres burned and area burned, as well as as the number of fires by cause.

### Acres Burned By fiscal years Acres burned (thousands) 600 NFS Lands Other Lands 500 400 300 200 100 0 1979 1980 1981 1982 1985 1983 1984

### **Number of Fires**

By fiscal years



The following display shows the structure change for the Fire Protection program:

Combination and

name change

Old Budget Line Items (1986 Explanatory Notes) New Budget Line Items (1987 Explanatory Notes)

- .. Fire prevention
- 2. Fire detection
- 3. Fire attack-
- 4. Fire aviation
- 5. Fuels management

- 1. Fire presuppression
- 2. Fuels management

These revisions more accurately describe fire protection activities.

National Fire Management Analysis System

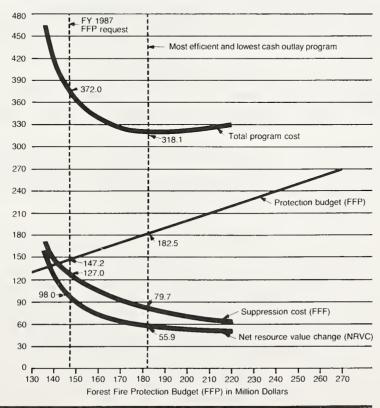
The national fire management analysis system is used to identify the level of the most economically efficient fire protection program. It is also used to identify the most efficient program composition at any given funding level. The analysis is based on historical data and economic efficiency. It considers statistically expected emergency fire suppression costs and expected net changes in resource value at alternative protection levels.

The most efficient program is specified by the lowest sum of FFP, FFF, and NRVC. The estimates for expected FFF costs and NRVC in alternative FFP budgets are considered in developing the proposed fire management program under a constrained total budget.

The initial budget analysis done in FY 1980 was limited in scope for technical reasons, but the analysis process has been revised to expand its capability, and the data base is being updated in the current forest planning process.

The following chart illustrates the relationship among FFP, FFF, and NRVC. The upper curve is the total cost of the program; its lowest point identifies the most efficient program budget level. The lowest cash outlay is that point where the sum of FFP plus FFF is minimized, which is also the most efficient point. Net resource losses are not included in the cash outlay formula. All data are in FY 1987 constant dollars.

# Relationship of Forest Fire Protection, Fighting Forest Fires and Net Resources Value Changes FY 1987



When the appropriated FFP is known and average annual fire severity is replaced with an actual fire severity, the national fire management analysis system is remarkably accurate in predicting total program costs. A comparison of actual experience with the analysis model, given actual appropriations and actual severity, is shown below:

# Analysis Comparison Table (Dollars in Millions)

Fiscal Year	Alternative	Severity Factor	FFP	FFF	Net Resource Loss	Program Total
1980	Est. from appn. $\frac{1}{2}$ / Est. adj. for severity $\frac{2}{4}$ / Actual	\$ 1.00 \$ .68 .68	$\begin{array}{c} 157.9 \ \frac{3}{3}/ \\ 157.9 \ \frac{3}{3}/ \\ 157.9 \ \frac{3}{3}/ \end{array}$	68.2 46.4 64.7	\$ 35.4 24.1 44.7	\$ 261.5 228.4 267.3
1981	Est. from appn. $\frac{1}{2}$ / Est. adj. for severity $\frac{2}{4}$ / Actual	1.00 1.37 1.37	$\frac{174.3}{174.3} \frac{3}{3}$ $\frac{3}{174.3} \frac{3}{3}$	63.6 87.1 99.0	31.7 43.4 77.9	269.6 304.8 351.2
1982	Est. from appn. $\frac{1}{2}$ / Est. adj. for severity $\frac{2}{4}$ / Actual	1.00 .20 .20	142.2 142.2 142.2	133.1 26.6 27.3	80.4 16.0 8.5	355.7 184.8 178.0
1983	Est. from appn. $\frac{1}{2}$ / Est. adj. for severity $\frac{2}{4}$ / Actual	1.00 .23 .23	153.9 153.9 153.9	145.6 33.5 35.3	88.8 20.4 23.8	388.3 207.8 213.0
1984	Est. from appn. $\frac{1}{2}$ / Est. adj. for severity $\frac{2}{2}$ Actual	1.00 .56 .56	156.7 156.7 156.7	142.8 80.0 62.2	84.6 47.3 35.8	384.1 284.0 254.7
1985	Est. from appn. $\frac{1}{2}$ Est. adj. for severity $\frac{2}{4}$ Actual	1.00 4/ <u>4</u> /	156.6 156.6 156.6	160.6 4/ 166.7	, 105.2 4 4	422.4 4/ 4/

1/ FFF and net resource loss estimates using an average fire severity.

2/ FFF and net resource loss estimates using an actual fire severity for the year.

3/ General Administration included.

4/ Complete data for the 1985 fire season is not available until April 1, 1986.

The analysis system estimates the expected annual average FFF and NRVC for a given FFP budget based on that budget being held constant over a period of about 10 years. Since the actual severity of the fire season varies, the FFF and NRVC experienced in a particular year are generally higher or lower than the predicted average.

The most efficient FFP budget identified by the analysis is one that will result in the lowest program cost over time. A higher program budget, while reducing both FFF costs and fire consequences on resources (net resource value change--NRVC) in both easy and severe fire seasons, will not offset the increased budget cost over time. Similarly, a reduced program will result in increased average FFF and NRVC costs (over the efficient program). While a lower budget may produce some saving over the efficient program if the year in which it is implemented is below normal in severity, significantly increased FFF costs and resources losses will result if that year is near or above normal in severity. Since the severity of an upcoming fire season cannot yet be predicted with any reasonable certainty, it is not possible to tell before hand in which years a reduced program would be appropriate as a cost-saving measure.

### Fire Presuppression

#### Objective

To ensure an appropriate level of protection from damage by wildfire to achieve land and resource management goals and objectives and fire management direction.

### Program description

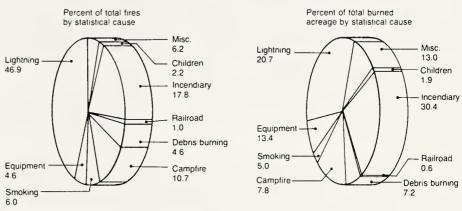
This program provides the Forest Service with the capability to prevent or take prompt, effective initial suppression action on wildfires to meet land and resource management objectives.

Prevention activities reduce the number and severity of wildfires caused by people. These activities include determining fire cause, problem analysis, reducing fire risk and hazards, public education, personal contacts, and determining need for and implementing forest closures and regulated use. Fire caused determination, including arson investigation conducted by the Forest Service, is included in this program.

Incendiary fires, campfires, and smoking related fires are the most common national causes of person-caused wildfire. The greatest economic losses and costs result from incendiarism, campfires, and debris burning. Specific prevention activities vary by region. The following charts show the percentage of fires and area burned by statistical cause and the most significant fire cause by Forest Service region.

### Percentage in Total Fires and Acres Burned, by Cause Class

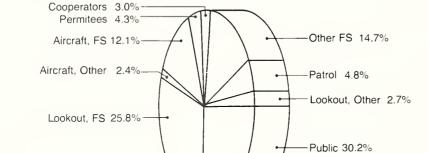
5-Year Average (1980-1984)



### Wildfire Major Person-caused Problems in the National Forest System



Presuppression encompasses everything from discovery of a fire to initial action on that fire. It provides recruiting, organizing, training, and equipping firefighters for both initial action and reinforcement. The following chart displays a historical average of the methods by which wildfires have been reported or discovered.



Means of Fire Detection

The Forest Service assists other Federal agencies and States through training programs, planning assistance, sharing joint use equipment contracts, and by operating interagency fire coordination centers.

The Forest Service also participates in the national interagency incident management system (NIIMS). This system has five major subsystems which collectively provide a single, unified approach to wildfire management. The on-scene management structure is called the incident command system. Other subsystems are training; qualifications and certification; publications management; and supporting technologies. Major cooperators (other Federal agencies, States, cities, and counties) participate in NIIMS.

The fire aviation activity provides aviation management support for all Forest Service programs. It also provides aircraft, aircrews, support personnel, facilities and equipment for personnel and equipment transport, reconnaissance, survey, and aerial retardant application for fire suppression. This activity also includes the support activities of training, inspection, operation and maintenance of base facilities, and aircraft contract administration.

Detection methods include observation towers, observation aircraft and electronic systems such as automatic lightning detection devices and infrared scanners.

A fleet of about 1,200 fire engines with crews of two to five persons are used. The number of engines in service at any one time depends on funding and fire-weather severity.

Another major component of the program is 48 highly trained interregional, 20-person fire crews. These crews are very effective for initial and reinforcement suppression action. When not fighting fire they provide a ready resource for planned presuppression activities and other NFS programs.

Fixed-wing aircraft and helicopters are used to detect and observe fires, deliver fire retardant, transporting personnel and equipment, and carry out other fire suppression functions. About 90 percent of total hours flown are provided by commercial operators under contract or agreement. The remainder are flown by aircraft owned or leased by the Forest Service or cooperating agencies.

The airtanker needs assessment is being updated in FY 1986. Currently, 34 airtankers are needed.

#### Decrease for 1987

	1987 <u>Base</u> (Doll	1987 <u>Estimate</u> ars in thousa	<u>Decrease</u>
Fire presuppression \$	144,179	141,930	-2,249
	3,790	3,773	-17

A decrease of \$2,249,000 is proposed from the 1987 base. Emphasis will continue at the FY 1986 level on prevention and early detection of wildfires. Also, emphasis will be maintained for aviation, a high risk fire management activity. Repositioning and emergency funding of critically needed firefighting resources and interagency support will be used extensively, as it was used successfully in FY 1985, to meet fire suppression needs.

Salaries and benefits	-401
Travel	-105
Transportation of things	-32
Rent, communications, and utilities	-234
Supplies, materials, and equipment	-449
Other contractual services	-1,028
Total	0.040
Total	-2,249

### Fuels Management

#### Objective

To minimize the potential for large, destructive wildfires by reducing, and where cost effective, the volume of hazardous forest and rangeland fuels.

### Program description

The fuels management activity includes the inventory of fuel hazards, analysis of alternatives for treating these hazards, and treatment. Treatment includes yarding and stockpiling woody materials for increased utilization, hand or mechanically manipulating fuels to a less flammable and obstructing condition, and reducing fuel volume by removal or prescribed fire.

Improved protection of natural resources is the major benefit. Other benefits include increased utilization of woody material for fiber and heat, improved recreation opportunity (public access, visual resources, etc.), increased grazing opportunities, improved wildlife habitat, increased water yields, and improved sites for planting timber.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 Estimate Tars in thousa	Decrease nds)
Fuels management \$	14,061	5,295	-8,766
	300	133	-167

A decrease of \$8,766,000 is proposed from the 1987 base. At the reduced program level, the fuels management activity is economically less effective than other presuppression activities. The program includes plans to treat 48,376 acres, 236,124 acres less than in FY 1986. This reduction is due to the combined factors of budget reduction and increased unit cost due to a smaller program.

Salaries and benefits	-3,943
Travel	-275
Transportation of things	-81
Rent, communications, and utilities	-612
Supplies, materials, and equipment	-1,167
Other contractual sérvices	-2,688
Total	-8,766

### **Fighting Forest Fires**

1985 <u>Actual</u>	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Fighting forest fires \$ 62,227	994	951	994	1,000	+6
FTE (660)					

### Objective

To provide partial funding for costs of the program.

## Program description

This program provides most of the direct expenses for fighting wildfires on or threatening NFS lands and for rehabilitating burned over NFS lands. It also may be used for fire suppression when forecasted and actual burning conditions exceed a nationally determined acceptable level of risk. These funds are used only to the extent necessary under emergency conditions.

The relationship between fighting forest fires (FFF) and forest fire protection (FFP) is displayed in the previous FFP section. The cost of fire protection on NFS lands is the sum of FFP, FFF, and net resource value change (NRVC) as a result of wildfires. Costs above those budgeted will require separate supplemental funding and/or reprogramming, as in the past.

# Fighting Forest Fires Expenditures (Dollars in millions)

•	Y 1980	FY	1981	FY	1982	FY	1983	FY	1984	FY	1985
\$	64.7	\$	99.0	\$	27.3	\$	35.3	\$	62.2	\$ 1	66.7

Beginning FY 1987, Office of Workers' Compensation Program (OWCP) charges directly identified to fire cases will be paid from applicable fire funds. In future years, all OWCP will be paid from those program funds where injuries occurred. The Department of Labor administers OWCP and provides compensation benefits to civilian employees of the United States for disability due to personal injury sustained while in the performance of duty or for work related illness. Benefits also are provided to dependents if the illness or injury results in the employee's death.

Incr	ease
for	1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> Ilars in thousan	Increase
Fighting Forest Fires . \$ FTE	994 	1,000	+6 

An increase of \$6,000 is proposed from the 1987 base.

The Forest Service traditionally requests an appropriation of \$1,000,000 for fighting forest fires, which is supplemented when actual costs are known.

+6 +6

Object class information	Other contractual services
	Total

### **Cooperative Law Enforcement**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Cooperative law enforcement \$	7,212 14	6,959 14	6,660	6,959 14	2,450 14	-4,509 

### **Objective**

To cooperate in law enforcement with States and their subdivisions to remedy situations involving vandalism, destruction, and theft of personal property, and assaults against visitors to National Forest System lands.

### Program description

The cooperative law enforcement program reimburses State and local law enforcement agencies for extraordinary expenses associated with protecting the public and their property on the National Forests. In many cases, the number of visitors to the National Forest equals or greatly exceeds the resident population of the counties. Since this visitor-use is seasonal and often occurs in geographically remote areas, additional costs are associated with protecting the visiting public. For example, a large number of illegal cannabis plantations (the source of marijuana) has been detected on National Forest System lands. Often they are protected by booby traps, guard dogs, and armed guards. The accidental entry of visitors into these areas poses a serious threat to visitors.

1987 1987

Decr	ease
for	1987

	Base	Estimate	Decrease
	(Dol	lars in thousa	nds)
Cooperative law			
enforcement\$	6,959	2,450	-4,509
FTE	14	14	

A decrease of \$4,509,000 is proposed from the 1987 base.

This program level provides \$2,000,000 for cannabis detection, investigation, and eradication and will emphasize removal of marijuana cultivation from National Forest System lands. Since law enforcement is primarily a local responsibility, the remaining funds will be used to maintain a minimal program in those most remote areas on the National Forest System where costs of protecting the public and their property are the highest.

Travel	-36
Rent, communications, and utilities	-30
Supplies, materials, and equipment	-101
Other contractual services	-4,342
Total	-4,509

#### Forest Road Maintenance

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest road						
maintenance\$	65,406	64,647	61,867	64,647	49,270	-15,377
Miles (thousands)	343.3	340.1		340.1	339.4	-0.7
FTE	1,194	1,185		1,185	1,040	-145

#### **Objective**

To support all resource programs on the National Forest System (NFS) in a cost effective manner. To maintain roads to serve intended management purposes. To protect the investment, environment, and adjacent resources. To provide for user safety. To meet applicable air and water quality standards. To provide for user economy and convenience.

## Program description

This program consists of (1) managing use of the transportation system cost effectively to meet NFS resource management objectives, and (2) maintaining the system in a condition suitable for intended uses.

### This work supports:

- The National Forest Roads and Trails Systems Act of October 13, 1964, which states that maintaining an adequate system of roads is essential to meet the increasing demands for timber, recreation, and other uses. Adequate road maintenance has the effect of increasing the value of timber and other resources; it is essential to intensive use, protection, development, and management of the National Forest System.
- The Highway Safety Act of 1966, which establishes criteria for a safety program to reduce death and injuries on roads.
- The National Forest Management Act of 1976, which establishes requirements for management of NFS lands.
- Resource program objectives identified in the annual NFS program of work.

The forest development road system at the beginning of FY 1986 contained about 343,300 miles of various standards and types of roads. About 90 percent of this mileage is single lane, and 75 percent of it is unsurfaced (no gravel or pavement). The capital investment realized in this system over the past 60 years is about \$3.5 billion. The replacement cost of this road system exceeds \$18 billion in current dollars.

Specific work activities funded by the road maintenance program include:

- 1. Transportation system management.
- Traffic studies--collecting and analyzing data on the use and physical characteristics of the road system.
- Jurisdiction--determining and resolving road jurisdiction and responsibility with States, counties, other Federal agencies, and private landowners.
- Cost share program--managing rights-of-way and administering construction and use agreements where it is beneficial for private landowners and the Forest Service to jointly develop and maintain a common road system, thereby reducing total costs to both parties.
- Regulations and controls--determining the need for, developing, and implementing traffic control (vehicle size, type of use, road closures, and use permits) where necessary to prevent damage to the road or resources; maintaining use within capacity limits; and ensuring that commercial users maintain roads commensurate with their use. Roads are closed to traffic to achieve specific management objectives, prevent resource damage, reduce construction and maintenance expenditures, or prevent use when road damage would occur.
- Enforcement--cooperating with local authorities to enforce Federal laws, rules, and regulations on the forest road system. This includes road closures, load limits, etc.
  - 2. Transportation system maintenance.
- Maintenance planning--inspecting roads and bridges to determine maintenance needs, developing a plan to finance and accomplish work, and coordinating maintenance activities of purchasers and cooperators.
- Maintenance work--performing on-the-ground work, such as roadside brushing, surface grading, culvert cleaning, replacing worn out surfacing, repairing bridges and other structures, and replacing damaged signs needed to maintain safe traffic flow.

Road system management and maintenance is financed by Federal appropriations (about 48 percent), deposits from purchasers of government timber (about 48 percent), and other commercial users, such as mining, private timber hauling, etc. (about 4 percent).

Obligations of timber purchasers and other commercial users are limited to those necessary to maintain roads in a satisfactory condition for their use requirements. The Forest Service is responsible for all additional maintenance attributed to administrative and noncommercial use.

A significant portion of road maintenance does not result from road use. This work includes culvert cleaning, roadside brush control, maintenance of traffic control devices, and bridge painting. During periods of commercial haul, these costs are shared between the Forest Service and the commercial user. During periods of reduced timber harvest, however, the Forest Service must assume full responsibility for such costs.

Increased public use and timber harvest traffic have resulted in deferring road maintenance. Although road conditions may be acceptable in the short term in spite of lack of maintenance, road reconstruction costs may increase in the long term.

Although the Forest Service transportation system contains about 343,300 miles of roads, only 31 percent (106,423 miles) is usable with modern low-clearance passenger cars.

At present, 19 percent of the road system (65,227 miles) is closed to all vehicle traffic. This closure is due to land and resource management and budgetary decisions.

Road closures are used as a tool in an integrated system of land management. Land and resource management planning guides where roads should be closed to protect resource values or achieve other objectives. When open, the road provides vehicular access for intensive resource production or use. Once that activity is completed, road closure protects other resources such as soil, water, or wildlife.

Efforts have been made to constrain the Forest Service budget, including road maintenance. As a result, some restrictions are necessarily imposed on portions of the road system, and some roads are permitted to deteriorate. Land management objectives do not necessitate a system where all roads are open to all vehicles at all times.

The remaining 50 percent of the road system (171,650 miles) is usable only by high clearance vehicles (pickup trucks, 4-wheel drive vehicles, logging equipment, etc.).

#### FY 1985 Road Maintenance Accomplishment

	Miles	Miles Ma Fully 1/	intained: Partially 2/	Not Maintained for Traffic
Closed	65,227			65,227
Maintained only for high-clearance vehicles	171,650	61,850	109,800	
Maintained for passenger cars	106,423	51,423	55,000	
Total road system	343,300	113,273	164,800	65,227

- Includes all work necessary to fully maintain the road to serve its intended management purposes; protect the investment, environment, and adjacent resources; provide for user safety; meet applicable air and water quality standards; and provide for user economy, access, and convenience.
- 2/ Some needed work not done.

Decrease for 1987			1987 <u>Base</u> (Dol	1987 Estimate lars in thousa	Decrease nds)
	Forest road	•	64 647	49 270	.15 377

FTE

A decrease of \$15,377,000 is proposed from the FY 1987 base.

Funding at this level will result in 102,000 miles of the road system being closed to all vehicular traffic, 170,000 miles being maintained for high clearance vehicles, and 67,400 miles for normal passenger cars.

1.185

1,040

-145

Management of the estimated 339,400-mile road system in FY 1987 will protect resources and capital investment in the road system.

Maintenance associated with user safety and care for road surfaces of structures will be accomplished.

Object class information	Salaries and benefits Travel Transportation of things Rent, communications, and utilities Supplies, materials, and equipment Land and structures Other contractual services	-1,939 -663
	Total	-15,377

### **Forest Trail Maintenance**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest trail						
maintenance\$	9,256	9,968	9,539	9,968	8,365	-1,603
Miles (thousands)	54.8	58.8		58.8	47.3	-11.5
FTE	272	290		290	260	-30

### Objective

To manage, operate, maintain, and preserve a trail system for public recreational access to National Forest System (NFS) land, and for resource protection, management, and administration.

## Program description

The National Forest System contains about 99,500 miles of trails. NFS trails are key to accomplishing the Forest Service objective of increasing recreational opportunities for activities such as hiking and horseback riding. Since 1970, trail use has more than doubled. In FY 1985, there were 13.1 million recreation visitor-days spent on NFS trails. (One person hiking 12 hours is defined as one recreation visitor-day.)

Trail maintenance includes repairing and improving trail signs, trail paths, and bridges. Maintenance protects the capital investment, keeps the trails cleared for public and administrative access, and protects vegetation, soil, and water. A trail that is not maintained may be so damaged it must be abandoned or reconstructed.

Trail maintenance is a popular program with volunteers. Volunteer trail maintenance is a shared cost program. The Forest Service provides equipment, food and supervision; volunteers provide labor and organization. A major portion of the volunteer effort comes through the adopt-a-trail program. This program provides for a long term commitment by a group or individual to care for a trail. The long term aspects of this program reduce the Forest Service costs for recruiting, training, and supervising volunteers.

In FY 1985, conservation-minded individuals and groups contributed 1,069 person-years of labor, valued at \$13.4 million, to the total recreation program on the National Forest System. Volunteer trail maintenance has increased from around 3,500 miles in FY 1981 to over 10,000 miles projected for FY 1986.

Wilderness classification increases trail use and trail maintenance costs. Mechanized equipment is not allowed in designated wilderness areas, so trail maintenance must be done with primitive tools and methods (such as the two-person cross-cut saw to buck felled trees, and animal pack strings to support crews). Trail maintenance costs in wilderness may be 25 percent higher than in nonwilderness.

Wilderness designation increases visitation and trail wear. The 163 additions to the Wilderness System by the 98th Congress doubled the number of wilderness areas administered by the Forest Service and substantially increased the costs of trail maintenance. Forty percent of trail maintenance funds are planned for wilderness areas, while only about 17 percent of the trail system is in these areas.

Decr	ease	e
for	100	7

	1987 Base	1987 Estimate	Decrease
	(Dol	lars in thousa	nds)
Forest trail maintenance\$	9,968 290	8,365	-1,603
FTE	290	260	~30

A decrease of \$1,603,000 is proposed from the 1987 base.

Funding at the proposed level will maintain 47,258 of the highest priority miles and partially provide the increased costs due to wilderness classification of 163 additional areas.

Funds will be used to provide for volunteer assistance under provisions of Section 11 of the National Trail System Act. Volunteers are expected to accomplish an additional 10,000 miles of trail maintenance.

The remaining 42,242 miles of the 99,500 mile system will receive custodial maintenance.

Salaries and benefits	-630
Travel	-88
Rent, communications, and utilities	-110
Supplies, materials, and equipment	-323
Other contractual services	-452
Total	-1,603

### **Timber Sales Administration and Management**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction	1987 Base	1987 Estimate	Inc.(+) or Dec.(-) from Base
			(Dollars in	thousands	)	
Timber resource inventory planning \$ Thousand acres	10,740 1,254 279	12,544 7,883 306	12,005  	12,544 7,883 306	13,280 7,100 320	+736 -783 +14
Silvicultural examination . \$ Thousand acres FTE	23,640 6,115 702	20,445 4,345 650	19,566  	20,445 4,345 650	20,870 4,722 657	+425 +377 +7
Sales preparation and						
harvest administration \$ Million board feet offered Million board feet harvested	160,322	148,556 11,400	142,168  	148,556 11,400	136,942	-11,614 -1,375
FTE	10,941 4,497	11,200 4,344		11,200 4,344	11,200 4,158	-186
Total\$ FTE	194,702 5,478	181,545 5,300	173,739 	181,545 5,300	171,092 5,135	-10,453 -165

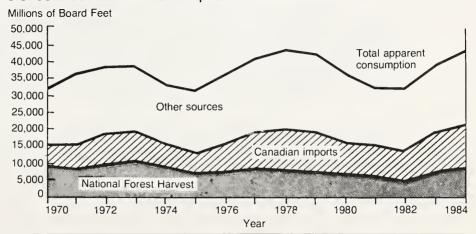
#### **General**

The National Forest System (NFS) contains the largest supply of standing sawtimber in the Nation, estimated at nearly 1.1 trillion board feet. This is about 41 percent of the national total.

The National Forests produce about 20 percent of the total sawtimber harvested in the United States each year. With the continued trend of growing demand for lumber, plywood, and other timber products, forest land management plans and related resource management programs must anticipate and provide for higher productivity on NFS lands, when it is economically and environmentally sound.

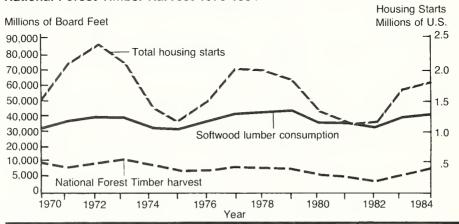
The amount of National Forest timber harvested each year depends upon many factors. The most important is new housing starts (single family and multi-family units), a major market for softwood timber.

### U.S. Softwood Lumber Consumption and Sources 1970-1984



An increasingly significant share of U.S. softwood timber demand has been met through imports, largely from Canada. The softwood lumber market share filled by imports from Canada has increased from 17.8% of market in 1970 to 31% of market in 1984. These imports buffer the effect of housing starts on NFS timber harvest levels.

## U.S. Housing Starts Compared with Softwood Lumber Consumption and National Forest Timber Harvest 1970-1984



Timber Sales Planning, Preparation, and Completion Process
Future timber production increases from NFS lands cannot occur on short notice. They must be "planned into the pipeline," following an orderly process to complete required planning, ensure compliance with the National Environmental Policy Act (NEPA) and other laws, and properly coordinate with management of other resources.

Timber sales planning and preparation follows the directions in the forest land management plans. The process begins with the identification of a project area and ends with the award of a timber sale contract. A 5-year timber sale action plan is maintained for scheduling the sale preparation. The stages of the process are:

1. Position statement development--completed at least 5 years before sale offering. Preparing a position statement includes extensive on-the-ground reconnaissance and data gathering to assess the technical and economic feasibility of preparing a timber sale proposal. This statement is prerequisite to entering the proposed timber sale project in the 5-year timber sale action plan, and to making further project investments. This stage also begins the NEPA process.

2. Sale area design--completed 1-3 years before sale offering. The intensive field investigation within and adjacent to the proposed project area provides information for preparing, analyzing, and evaluating alternatives under the NEPA process. The purpose is to develop an environmentally sound and economically efficient project. As a result of environmental analysis, the responsible official determines the need for a formal decision document.

During the planning and design stages of the sale, an evaluation is made of the surrounding area--a drainage, transportation analysis area, or other logical planning unit--even though a proposed timber sale may affect only a portion of the area. The pattern, methods, and timing of treatments for the entire area are considered, to ensure that developments will meet management objectives. Detailed information is developed on stand conditions, silvicultural prescriptions, logging systems applications, roads, planned fuel treatments, and other resource management opportunities. Sale planners integrate economic analysis to show the economic results and tradeoffs involved in the sale.

- 3. Sale plan implementation--completed 3 months to 3 years before sale offering. This includes timber marking, determination of timber volume and quality, on the ground location of harvest units, logging system design, and road survey and design. Property lines are located, and necessary cost sharing agreements and right-of-way easements are obtained. A further review of economic assumptions from the second stage is made to ensure that all the sale related activities do not burden the sale with unnecessary costs.
- 4. Final sale package preparation--completed 2-3 months before sale offering. The contract, timber appraisal, advertisement, bid form, prospectus, and sale area map are assembled and the sale is advertised.
- 5. Bid opening--includes accepting the bids, conducting an auction when appropriate, and determining the successful bidder.
- 6. Sale award--includes identifying the successful bidder, reviewing bidder qualifications, obtaining EEO clearance, and completing a road option investigation and feasibility review, if applicable, before the sale is finally awarded.
- 7. Sale administration--includes the period of time from sale award to completion of sale contract provisions. This generally takes from 1 to 5 years without contract extension. Timber sales are administered within terms of the approved timber sale contract, so that full compliance of such terms is fairly applied to both parties. Contract modification to extend time to harvest, and rate redeterminations are dealt with on a case-by-case basis.
- 8. Post sale treatment--includes reforestation (1-2 years), stand improvement (1-5 years), and other resource coordination activities that are carried out according to specific measures identified in the sale area design (Step 2 above) and as updated in periodic reviews of these prescriptions.

#### Timber Resource Inventory Planning

#### Objective |

To gather and provide timely information on the extent and condition of the timber resource on NFS lands.

### Program description

This program develops the information necessary for planning the orderly management of National Forest timber resources. This information is used primarily to determine lands suitable for timber production, establish timber sales schedules, and identify opportunities for intensive forest management.

Timber resource inventories provide information necessary to compile land classification, determine timber volume, and monitor growth rates. Other information is also gathered for forest land and resource management plans. These inventories describe the condition and extent of the timber resource on each National Forest, providing a measure to evaluate changes during the planning period.

The inventories also provide resource information for research publications and the national assessment and program required by the Forest and Rangeland Renewable Resources Planning Act (RPA). With the completion of a major part of the land management planning effort, about 8-9 million acres of NFS lands will be inventoried annually under this program. This schedule will help meet the requirements for a 10-year review cycle of NFS land and resource management planning.

This cycle of timber resource inventories is coordinated with the schedule for State forest inventories carried out under the Forest Research appropriation for forest inventory and analysis.

#### Increase for 1987

1987	1	987	
Base	Est	imate	Increase
(Do	lars in	thousan	ds)

13,280

+736

+14

FTE 306 320
An increase of \$736,000 is proposed from the 1987 base.

inventory planning .... \$ 12,544

Timber resource

This will permit collection of timber resource inventory data on about 7,100,000 acres of NFS lands necessary to keep on schedule for preparing and updating Forest plans.

Emphasis will continue to be shifted from preparation of new Forest plans to maintenance and update of currently approved plans on a 10-year rotation.

The increase of unit cost from \$1.59 per acre in FY 1986 to \$1.87 per acre in FY 1987 is due largely to the more difficult terrain and access on the National Forests to be inventoried.

Salaries and benefits	+366
Travel	+25
Transportation of things	+12
Rent, communications, and utilities	+52
Supplies, materials, and equipment	+90
Other contractual services	+191
Total	+736

#### Silvicultural Examination

#### Objective

To periodically review and analyze timber stand conditions and treatment needs to meet forest and resource management plan objectives. To provide information for monitoring and certifying silvicultural treatments to ensure the timber resource is managed properly.

## Program description

The program gathers timber stand data, compiles and stores these data in stand files, and prepares an analysis and written prescription for about 5 million acres of forest land annually to ensure proper treatment.

Timber stands are normally examined at 10-year intervals so land managers can monitor changing stand conditions and treatment needs. Examinations should be accomplished 4-5 years before the proposed treatment, to allow for the orderly development of treatment prescriptions and to use information in the NEPA process.

Although Forest Service employees conduct most stand examinations, use of contractors is increasing.

A stand prescription is based on data from the silvicultural examination, a document certified by a silviculturist which describes current stand conditions and proposed silvicultural treatments.

#### Increase for 1987

	1987 Base	1987 Estimate	Increase
		lars in thousar	
Silvicultural	(001	iars in Glousai	ius į
examination\$	20,445	20,870	+425
FTE	650	657	+7

An increase of \$425,000 is proposed from the 1987 base.

This will provide for silvicultural examination activities on 4,722,000 acres, 377,000 more than the 4,345,000 acres to be examined in FY 1986. This level of program is necessary to sustain a future timber sale offer level of 10.0 BBF.

The estimated cost of stand examination for FY 1987 will be \$4.42 per acre, compared to an average cost of \$4.71 per acre in FY 1986. The reduced cost per acre is due primarily to the easier access to the acres to be examined in FY 1987.

Salaries and benefits	+184 +16 +8 +34 +58 +125
Other contractual services	+125

### Sale Preparation and Harvest Administration

#### Objective

To carry out a timber sale program that complies with applicable laws, regulations, and forest land management plans; responds to short and long term economic factors to ensure a stable supply of wood products at reasonable prices; incorporates cost efficiency and cost effectiveness as basic decision tools while protecting National Forest resource values; optimizes utilization of the available wood supply through advanced technology and marketing; incorporates improved practices and procedures for protecting the overall public interest; and provides the harvest administration activities to minimize adverse environmental impact, maximize benefits, and protect the Government from fraud, abuse, and waste.

## Program description

A discussion of each part of the program follows:

Timber Sale Preparation.

Although the FY 1987 sale preparation program will involve work on sales to be offered in 1987, most of the work will affect sales to be offered in 1988 through 1990. Recent program levels are:

	Sales Prepared (BBF)	Sales Offered (BBF)	Volume Harvested (BBF)	Housing Starts <u>1</u> / (Millions)
1976	10.3	10.3	9.6	1.5
1977	11.6	11.0	10.5	2.0
1978	12.2	12.6	10.1	2.0
1979	12.4	12.4	10.4	1.8
1980	12.4	12.4	9.1	1.3
1981	12.2	12.2	8.0	1.1
1982	11.4	11.1	6.7	1.1
1983	11.3	11.3	9.2	1.7
1984	11.9	11.9	10.5	1.8
1985	11.7	11.5	10.9	1.8
1986 planned	11.4	11.4	11.2	$1.9^{2}$
1987 planned	10.0	10.0	11.2	2.0 <u>2</u> /

<sup>1/</sup> Department of Commerce.

#### Harvest Administration

Timber sale contracts are administered to meet land management objectives, fulfill contractual obligations, and protect the public's interests. Administration includes ensuring that purchasers understand objectives, monitoring purchasers' activities for contract compliance, approving purchasers' work for payment, measuring (scaling) the purchasers' logs for payment, ensuring proper log accountability from stump to mill, ensuring that contract payments are adequate for the expected level of activity, negotiating and resolving disputes concerning contract performance, and enforcing laws applicable to the purchaser's operation and contract.

<sup>2/</sup> OMB economic assumptions.

Fuelwood and Other Miscellaneous Products

In FY 1985, fuelwood use from NFS land increased over FY 1984. The equivalent of 1.5 billion board feet (BBF) of fuelwood was sold or given free (0.8 BBF sold, 0.7 BBF free) in FY 1985, compared with 1.4 BBF in FY 1984. Receipts from FY 1985 fuelwood sales were \$5.7 million.

The fuelwood program costs are borne primarily from timber sale funds, supplemented from other benefiting funds, including brush disposal, K-V, and the timber salvage sale fund.

Fuelwood use should level off for 1986 and increase slightly in 1987. The proportion of fuelwood sold should increase as forests continue phasing in fees for fuelwood permits.

Related Funding

Funding part of the FY 1987 10.0 BBF sale program, including fuelwood and other miscellaneous products, is proposed from the following permanent appropriations:

<u>Source</u>	Timber Volume	FY 1987 <u>Estimate</u> (Dollars in thousands)
Tongass Timber Supply Fund	424 MMBF	45,815
Timber Salvage Sales	810 MMBF	20,713
TOTAL	1,234 MMBF	66,528

Relation to Other Programs

Support from other budget line items is necessary to carry out a timber sale program within a multiple use context.

- Support from wildlife, range, recreation, water, and soils helps in design and implementation of timber sales to achieve multiresource objectives on the sale area.
- Sale preparation and administration need engineering services for transportation planning, survey, design, contract preparation, and construction inspection.
- The sale program requires strong support in cadastral surveys where sales are planned adjacent to other ownerships.
- Rights-of-way sometimes must be acquired for access to timber sales.

Timber sale support to and from other programs is as follows:

	1985	1986	1987
	Actual	Estimate	Estimate
	(Do1	lars in thous	ands)
National Forest System			
Timber management	\$ 140,432	\$ 126,170	\$ 118,912
Harvest administration	54,270	55,375	52,180
Timber support to other programs	-10,208	-6,557	-9,458
Subtotal, timber sales program	184,494	174,988	161,634
Support to timber sales program: 1/			
Minerals	1,195	1,177	1,177
Land line location	22,531	18,857	16,265
Forest fire protection	4,989	3,544	3,262
Recreation	7,237	8,044	6,461
Wildlife and fish	8,187	8,758	5,820
Range	800	975	647
Soil, water, and air	8,845	7,869	6,161
Subtotal, timber support	53,784	49,224	39,793
Total, National Forest System	238,278	224,212	201,427
Dood construction			
Road construction Forest Service construction	200,915	161 105	1/12 017
Purchaser construction	(192,301)	161,185 (107,885)	143,817 (154,321)
Purchaser construction  Purchaser roads constructed by Forest Service	33,903	22,911	15,434
Total, road construction	234,818	184,096	159,251
iotai, road construction	254,010	104,090	159,251
Special accounts			
Brush disposal	41,822	48,026	47,835
Timber salvage fund	16,055	24,000	20,713
Tongass timber supply fund $\frac{2}{}$	47,049	47,818	42,254
Total, special accounts	104,926	119,844	110,802
TOTAL, TIMBER SALES PROGRAM	\$ 578,022	\$ 528,152	\$ 471,480
	(Outpu	ts in billion	board feet)
Timber prepared	11.7	11.4	10.0
Timber offered	11.5	11.4	10.0
Timber harvested	10.9	11.2	11.2
	10.5	11.5	-1.6

<sup>1/</sup> In FY 1985 and FY 1986 some road maintenance funds were included under "support to timber sales program." In FY 1987, all road maintenance funding in support of resource programs is displayed under the road maintenance line item. Road maintenance for timber harvest operations is paid for by the timber purchasers.

 $<sup>\</sup>frac{2}{}$  Does not include reforestation and timber stand improvement costs. These costs are included in the Permanent Working Funds section under Tongass Timber Supply Fund (TTSF) appropriation.

## Timber sale

The proposed FY 1987 timber sale preparation and offer volume is 10.0 billion board feet as follows:

	Actual FY 1985	Estimated FY 1986 (Million Board	FY 1987
Nov. colo volumo	10 572	7 250	6 615
New sale volume	10,573	7,250	6,615
Reoffer volume		3,250	2,600
Salvage sales	962	900	810
Shelf volume	201		
TOTAL	11 736	11 400	10 025

#### New Sale Volume

New sales are initiated 1 to 5 years prior to final offer to carry out forest land and resource management objectives in a cost effective manner.

The average unit cost for the preparation and offer of new sales is \$10.53 per thousand board feet in FY 1987 compared to \$10.83 per thousand board feet in FY 1986. Unit costs are slightly lower due in part to more sales coming from presently roaded areas. These costs include the preparation and offer of nonconvertible sales for Christmas trees, boughs, etc.; free use permits for personal use fuelwood; and small personal use sales of less than \$300 in value; and preparation and offer of commercial timber. The costs do not include inventory, silvicultural examination, or timber support programs.

The Forest Service will continue to monitor regional and Forest timber sale levels to achieve a balance between the amount of timber offered for sale and local market demand. The amount of timber offered but not sold, and the amount of timber under contract but remaining unharvested will be reviewed annually and used to adjust timber sale plans to local market demand. These reviews will also consider improving timber sale offerings to reduce the incidence of below cost type sales.

#### Reoffer Volume

During the late 1970s, NFS timber was sold at high prices that were based on anticipated high housing construction levels and continued inflation that never materialized. As a result, many sales became highly unprofitable for purchasers to operate. Subsequently, enactment of the Federal Timber Contract Payment Modification Act, Public Law 98-478, provided these purchasers the opportunity to "buy out" their unprofitable contracts.

Timber sale purchasers returned 9.7 billion board feet (BBF) of National Forest timber under this law, 95 percent of it in Forest Service Regions 1, 5, and 6. This returned timber will be offered for resale in an orderly fashion, and will be given preference in the Forest Service timber sale program.

This returned timber volume will be reoffered for sale each year as follows:

FY 1986	FY 1987	FY 1988	FY 1989
3.2 BBF	2.6 BBF	2.0 BBF	1.9 BBF

Most of the returned volume in the Rocky Mountain and western Regions will be reoffered during FYs 1986 and 1987.

The estimated FY 1987 timber sale preparation costs for reoffered timber will be \$5.69/MBF, about 54 percent of sale preparation costs for new sales. This unit cost is \$1.11/MBF greater than the FY 1986 unit cost because the amount of time to prepare these sales will increase. The FY 1987 sales will require more field and office review to ensure compliance with environmental standards, remarking of timber, and adjustment of sale conditions to make smaller size sales. The cost is based on field estimates of the work needed to make the proposed volume available. Regional Foresters are analyzing the contracts approved for return, and will schedule the work on individual sales through the timber sale planning and preparation process described earlier.

Salvage Sales

These sales allow the Forest Service to use money from the sale of salvage material to cover the cost of preparing and administering the sale of additional insect-infested, dead, damaged, or down timber. The timber salvage sale program has provided for timely preparation, sale, and removal of this material.

These sales are a source of low-priced timber for small timber purchasers, remove material subject to damage from fire or disease, and yield a net return to the U.S. Treasury.

#### Shelf Volume

Congress has authorized and funded the Forest Service to prepare timber sales and hold them "on the shelf" ready for sale at a future date, when they can be used to dampen short-term fluctuations in the timber market.

If needed, these sales can be offered at an additional cost of about 10 percent. Shelf sales are sold each year, but replaced to maintain a continuous level of shelf volume ready for sale.

At the end of FY 1985, 968 million board feet of this shelf volume was available.

#### Unsold Sales

Each year the National Forests prepare and offer timber sales that do not sell in the same fiscal year. In such cases, the timber sale is declared to have been completed, prepared, and offered for sale, and efforts are made in the next fiscal years to sell it as initially offered or to modify it so it will sell. When the sale is sold, the volume is recorded as sold in that fiscal year. If the sale is not sold, it is withdrawn from the market to be reworked and reoffered for sale 2-5 years after the initial offer.

Cap on Uncut Timber Under Contract in Region 6
Section 2(a)(5)(C) of the Federal Timber Contract Payment Modification
Act establishes two controls to limit the uncut volume of timber in
Region 6 timber sales:

- (1) The maximum annual timber sale volume is to be set so that no more than 12.3 billion board feet of net merchantable sawtimber is under contract at the end of each fiscal year.
- (2) The maximum annual sale program is not to exceed 5.2 billion board feet of net merchantable sawtimber. These controls last through FY 1991 or the fiscal year in which the multisale extension program sales in Region 6 are completed, whichever is later.

As of September 30, 1985, 11.7 billion board feet of uncut timber was under contract in Region 6 after adjustment for the volume turned back. This was well within the Act's requirement of 12.3 BBF. However, the Forest Service will reduce the volume of net merchantable sawtimber sold in Region 6 if this is necessary to stay within the "cap," and will increase the timber volume sold in other Regions to meet its timber sale target.

New programs are being developed to supplement existing accounting procedures to accurately monitor the amount of uncut timber under contract and administer the cap. This amount will be reported quarterly the first two quarters each fiscal year the cap is in effect, and monthly during the last two quarters, to monitor the amount of volume under contract in R-6.

Special Initiatives
Special timber sale program initiatives to be developed or implemented in FY 1987 are:

- Transaction Evidence Analysis. The Forest Service will continue to evaluate the transaction evidence analysis process throughout the western Regions during FY 1986. Implementation, if approved, will expand in the Northern Region and begin in the Pacific Southwest Region as the data base for the appraisal system is refined and testing shows it to be more reliable. The Pacific Northwest and Alaska Regions will continue to test the accuracy of their systems during this period. Further expansion of transaction evidence analysis in FY 1987 is possible in areas which have proven accuracy in determining appraised rates. A transaction evidence analysis report will be submitted to the House and Senate Appropriation and authorizing committees for review.
- Heli-stat. Heli-stat is designed to demonstrate the feasibility of using a heavy-lift (20+ tons) vertical lift aircraft in harvesting timber from remote, environmentally sensitive areas of the National Forests. The current schedule calls for initial flight testing and completion of the logging qualification trials and demonstration of log hauling capabilities to take place at Lakehurst, New Jersey in FY 1986. Final analysis, report writing, program wrap-up, and disposal of the vehicle are scheduled for completion in FY 1987.
- Tree Measurement. The Forest Service will continue to use tree measurement where it is more cost effective than scaling individual logs. Expansion of this procedure will continue in low-value species or products. This expansion will occur through FYs 1986 and 1987. The Northern Region is continuing to evaluate sales in which timber is offered and sold on a per acre basis as opposed to a per thousand board foot basis. A National Forest cruising handbook has been issued with criteria for tree measurement sales. Based on development of these criteria, Forest Service Regions will develop a program to increase use of tree measurement sales.
- Sales Tracking and Reporting System. The sales tracking and reporting system will enter the third phase of implementation in FY 1986 and will be expanded to national application in FY 1987. This system will be used to follow the sale planning process from inception through post-sale activities. It will facilitate timely evaluation of the sales program during preparation, harvest, and sale area improvement.

- Timber Sale Contract. Revision of the national timber sale contract will continue through FY 1986, and the final draft will be completed and published in FY 1987. The contract was last revised in 1973. In addition to incorporating significant language changes, the revised contract will improve the wording of many easily misunderstood provisions to eliminate disputes and claims.
- Appraisals. The Forest Service will continue work with cooperating industry representatives to improve the basic data for appraisals. Mill studies will be emphasized in FY 1987, to better determine the end product volume and values of various species.
- Timber Sale Cost Accounting. In FY 1986, the Forest Service will submit to Congress the proposed cost accounting system, which displays National Forest costs and benefits for timber sales. An information management group will implement the system at the Forest level in FY 1987.

Decrease for 1987

S

	1987 <u>Base</u> (Doll	1987 <u>Estimate</u> ars in thousa	Decrease nds)
Sale preparation and harvest administration \$ FTE	148,556	136,942	-11,614
	4,344	4,158	-186

A decrease of \$11,614,000 is proposed from the 1987 base. This reduction is composed of a decrease of \$8,419,000 for timber sale preparation and offer activities and a decrease of \$3,195,000 for timber harvest activities.

The timber sale preparation funding of \$84,762,000 provides for the preparation and offer of 7.425 BBF of new sales (including 810 MMBF of timber salvage sales) and 2.6 BBF of reoffer volume as a result of the Federal Timber Contract Payment Modification Act of 1984 (FTCPMA).

The total timber sale offer program of 10.0 BBF is about 1.4 BBF less than in FY 1986.

The decreased funding requested provides for the reduced workload necessary to reexamine, remark, and reoffer 2.6 billion board feet of timber sales turned back in FY 1985. With less than the anticipated volume turned back under the FTCPMA, and more of this volume to be reoffered in FY 1986 than anticipated, the remaining volume to be reoffered will be more difficult to prepare and will involve higher unit costs. Estimated reoffer costs in FY 1987 are \$5.69/MBF, an increase of \$1.11/MBF from estimated FY 1986 costs.

The funding adjustments are based upon the specific timber sales and their requirements to be reoffered. The reoffer volume will be returned to the market in a timely manner commensurate with local market conditions and available work force.

Resource support will fund work that needs to be done in FY 1987 on sales scheduled in FY 1988 and later years. Particular emphasis for resource support efforts in soil and water, cultural resources, wildlife, fisheries, and minerals will enable completion of needed inventories for these resources. This effort will provide for the resolution of environmental issues that have prompted numerous administrative appeals.

Emphasis in fire and range resource coordination will provide the necessary support to meet the important issues of forest residue treatments and transitory range opportunities.

The amount of resource coordination has been further adjusted because of the amount of turn back timber sales volume that will be reoffered. A portion of these timber sales will not need to be reexamined or reevaluated; therefore, the amount of support costs has been reduced.

Funding for harvest administration includes \$2.6 million to phase out the Heli-stat program in FY 1987, following completion of testing in FY 1986.

While sale offerings in FY 1987 will be 10.0 billion board feet, funding is provided to maintain future-year sales levels of approximately 2.0 billion board feet of turn back sales until all volume is reoffered, and new sales of 8.0 BBF. The amount of new sales will begin to increase as the amount of turn back sales decreases, so that advance sale preparation will have to be shifted back to new sales 2 to 3 years before they can be offered for sale.

Salaries and benefits	-4,858 -458 -218 -949 -1,640
Other contractual services	-3,491 -11.614

Timber sales from Oregon and California Grant Lands.

The funding needed for the preparation and offer of 200 million board feet of timber sales for FY 1987 from Oregon and California Grant Lands that have been historically administered by the Forest Service is in the Forest Service budget. The following table shows the various funded items that are included.

Funding for (0.000) Oregon and California (0.000) Grant Lands (0.000)

	FY 1985 Actual	FY 1986 Estimate (Dollars in thousands)	FY 1987 Estimate
National Forest System (NFS)			
Timber Sales and Administration and Management\$ Volume, million board feet	5,789 (200)	5,522 (200)	4,878 (200)
Reforestation and Timber Stand Improvement\$ Acres	851 (1,000)	823 (1,000)	850 (1,000)
Forest Fire Protection\$	645	615	630
Recreation Use\$	163	142	140
Forest Road Maintenance\$	1,086	430	446
Maintenance of Facilities\$	95	93	90
General Administration\$	10	8	7
Subtotal, NFS\$	8,639	7,633	7,041
Construction			
Forest Road Construction\$	600	722	550
Total <u>2</u> /\$	9,239	8,355	7,591

<sup>1/</sup> The funding levels for FYs 1985, 1986, and 1987 for 0&C Grant Lands under existing Forest Service management are included in the regular Forest Service appropriations.

<sup>2/</sup> Does not include costs associated with Permanent Appropriations or Trust Funds.

### Reforestation and Stand Improvement<sup>1</sup>

	1985 Actual		1986 Estimate with DCA Reduction Dollars in	3/ Base		Inc.(+) or Dec.(-) from Base
Reforestation NFS-RTF\$ Thousand acres	57,429 175.2	53,877 144.9	51,561	53,877 144.9	28,393 78.6	-25,484 -66.3
K-V\$ Thousand acres	70,764 194.6	70,128 201.1	67,114 	70,128 201.1	91,494 255.5	+21,366 +54.4
Timber stand improvement NFS-RTF\$ Thousand acres	33,563 300.5	30,340 196.9	29,035	30,340 196.9	15,938 120.5	-14,402 -76.4
K-V\$ Thousand acres	19,326 120.9	19,584 136.8	18,742 	19,584 136.8	28,091 182.0	+8,507 +45.2
Nursery and tree improvement operations NFS-RTF\$ Million seedlings Nursery stock-NFS Nursery-S&P		15,203 134.2 28.0	14,549  	134.2	13,617 134.0 28.0	-1,586 -0.2
Total, NFS-RTF\$ FTE	104,664 1,974	99,420 1,974	95,145 	99,420 1,974	57,948 <u>4/</u> 1,180	-41,472 -794
Total, K-V \$ FTE	90,090 1,281	89,712 1,273	85,856 	89,712 1,273	119,585 1,643	+29,873 +370
TOTAL\$ FTE	194,754 3,255	189,132 3,247	181,001	189,132 3,247	177,533 2,823	-11,599 -424
Reforestation (thousand acres	369.8	346.0		346.0	334.1	-11.9
(thousand acres Nurseries (million seedlings		333.7 162.2		333.7 162.2	302.5 162.0	-31.2 -0.2

 $<sup>\</sup>frac{2}{}$  In FY 1986, \$30,000,000 from the Reforestation Trust Fund was transferred to and merged with the National Forest System appropriation.

<sup>3/</sup> Knutson-Vandenberg funds are not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177. Therefore, the reduction from K-V is in planned obligations, rather than budget authority.

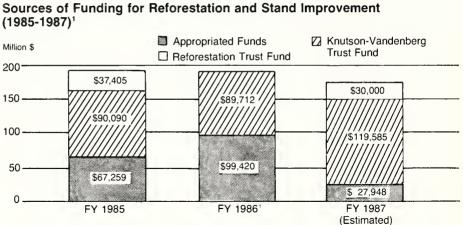
 $<sup>\</sup>frac{4}{}$  FY 1987 includes \$30,000,000 from Reforestation Trust Fund, of which \$25,000,000 is for reforestation and \$5,000,000 is for timber stand improvement.

#### General

Reforestation and stand improvement activities are directed toward obtaining adequate stocking of forest lands and maintaining a level of timber productivity sufficient for sustained yield management of National Forest System (NFS) lands. The objective is to increase the growth rate and product quality of timber growing on National Forests to levels consistent with environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

The reforestation and stand improvement program is financed with appropriated funds, reforestation trust funds, and Knutson-Vandenberg funds (K-V). These funds are used to reforest harvested areas; areas damaged by fire, insects, or disease; or failed plantations; and to release planted areas from competing vegetation or thin overstocked commercial stands.

These funds pay for seedlings purchased from Forest Service and private nurseries. Contracts for site preparation, animal damage control, fertilization, tree planting, release, precommercial thinning, and a limited amount of tree pruning are also charged to these funds.



<sup>1</sup>In 1986 Appropriated funds include \$30,000,000 from Reforestation Trust Fund, which was merged with the National Forest System appropriation.

#### Reforestation

#### Objective |

To reforest annually an area equal to the area deforested annually.

## Program description

As of October 1, 1985, an estimated 827,000 acres of NFS land needed reforestation, due to timber harvest; natural disasters such as fire, storms, insects, and disease; and previous unsuccessful reforestation treatments. Such reforestation needs accrue continually at the rate of about 450,000 acres per year.

The Forest Service meets those needs through seeding, planting, and preparing sites to encourage natural regeneration, based on the approved management prescription. Some areas regenerate naturally without special treatment or investments beyond the timber harvest operation.

The K-V reforestation account in the Trust Funds appropriation is used to purchase seedlings for reforesting timber sale areas. Seedlings to be planted on all other areas are purchased with funds from the National Forest System appropriation.

The estimate of reforestation needs changes each year as accomplishments are reported, new inventories are completed, acres are added due to timber harvests, and other changes occur. Lands are certified as reforested following periodic on the ground examination for 3 years to verify the success of the reforestation. The following table shows changes in the reforestation needs since 1985, and FY 1987 current needs.

## Reforestation Needs (Thousand acres)

Balance, October 1, 1985	827 (Actual)
New needs in FY 1986	+450
Projected accomplishments in FY 1986	-346
New Balance, October 1, 1986	931
New needs in FY 1987	+450
Projected accomplishments in FY 1987	-334
New Balance, October 1, 1987	1,047

Current needs are expected to level off at the desirable level of about 1 million acres, indicating a continuing reforestation program of about 400,000 acres per year, including K-V work.

This rate represents the 2-3 year lag between the time an area is deforested and when it is reforested. This lag is due to environmental factors that affect the timing of site preparation, contracting to complete the work, and the availability of seedlings for that specific site.

Reforestation is a capital investment opportunity. Cost effectiveness is therefore a primary concern in planning and scheduling work. The program is guided by efforts to improve benefit-cost ratios through analysis of regeneration techniques and related work.

Decr	<b>ease</b>
for	1987

	1987	1987	
	Base	Estimate	Decrease
	(Doll	ars in thousa	nds)
Reforestation\$	53,877 992	28,393 546	-25,484 -446

A decrease of \$25,484,000 is proposed from the 1987 base. This program level provides for the reforestation of 78,589 acres compared to 144,920 acres in FY 1986. The decrease of 66,311 acres from FY 1986 is a result of an increased emphasis upon the K-V reforestation program as a result of increased timber harvesting.

The combined appropriated and K-V reforestation program will accomplish about 84 percent of the estimated annual need of 400,000 acres. This will result in a current need level of 1,047,000 acres at the end of FY 1987, compared to a projected 931,000 acres at the end of FY 1986.

The method of selecting projects has been changed from least-cost-projects-first to the selection of projects that have the highest potential for future returns. The change in project selection has changed the unit costs from \$328 per acre in FY 1985 and \$372 per acre in FY 1986, to \$361 per acre in FY 1987. Unit costs are expected to remain high because of increasing contract bid prices, site preparation costs, and animal damage control costs that continue to rise as alternative treatment methods are used to replace pesticide treatments.

The proportion of reforestation accomplished with appropriated funds continues to decline, while reforestation funded by K-V increases from 57 percent in FY 1986 to 76 percent in FY 1987.

The program level is consistent with the planned nursery seedling production for FY 1987, and recognizes the need to keep the current budget level as low as possible while still meeting management objectives.

Salaries and benefits	-10,453 -319 -216 -816 -3,400 -1,591
Other contractual services	-8,689 -25,484

#### Timber Stand Improvement (TSI)

#### Objective

To improve timber growth and protection by maintaining stocking control and removing competing vegetation.

## Program description

Timber stand improvement activities increase timber growth or product quality by thinning to removing excess trees, removing competing yeaetation, and fertilizing stands.

Young unmerchantable stands of trees are thinned, usually with chainsaws or hand tools, to remove surplus and poor quality trees and allow the remaining trees to grow at optimum rates. Hand tools, prescribed fire, machinery, and herbicides are used to remove or retard growth of competing vegetation, thus releasing trees to ensure survival or increase growth rates.

As of October 1, 1985, 1.45 million acres needed timber stand improvement to improve growing condition. Of this amount, 490,000 acres needed release from competing vegetation and 894,000 acres needed thinning. The remaining acres--about 66,000--need fertilization or pruning.

Each year about 400,000 acres of new stands are treated by reforestation. As these trees grow, most will need to be released from competing vegetation and/or thinned to maintain healthy, vigorous stands.

A maintenance level of about one million acres of TSI needs is desirable. This allows adequate lead time for planning and project preparation, and flexibility to adjust to changes.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousar	Decrease nds)	
Timber stand improvement	\$	30,340	15,938	-14,402
	FTE	670	379	-291

A decrease of \$14,402,000 is proposed from the 1987 base.

This level will provide for timber stand improvement on 120,500 acres as compared to 196,900 acres in FY 1986. This decrease of 76,400 acres is due to an increase in the Knutson-Vandenberg stand improvement program caused by increased timber harvest levels.

This level of TSI will increase annual growth by 500 MMBF/year.

The combined appropriated and K-V stand improvement programs will accomplish 76 percent of the estimated annual need of 400,000 acres, and result in current needs of 1,518,000 acres by October 1, 1987.

The method of selecting stand improvement projects has been changed from a criterion of least cost to the greatest potential for future returns. The average unit cost in FY 1987 is \$132 per acre as compared to \$154 per acre in FY 1986. The reduction in unit costs is due to the selection of high return, low cost projects combined with modified slash disposal standards.

Salaries and benefits	-6,819
Travel	-161
Transportation of things	-109
Rent, communications, and utilities	-412
Supplies, materials, and equipment	-1,716
Land and structures	-803
Other contractual services	-4,382
T-4-1	14 400
Total	-14,402

#### Nursery and Tree Improvement Operations

Objective

To improve the genetic quality of seed and planting stock used on National Forest System (NFS) land. To produce high quality planting stock in appropriate numbers and species for timely reforestation.

Program description

Tree Improvement Program

Forest tree improvement programs have been implemented to varying degrees in all regions. The two major goals are (1) to apply sound genetic principles to all silvicultural prescriptions and (2) to provide seed for seedling production that will yield adaptable, fast growing, high quality, pest-resistant trees. Seed collection zones and/or breeding zones based on physiographic and biological data have been delineated in all regions to ensure use of locally adapted seed.

Intensive tree improvement programs are implemented for those species and breeding zones where investments can be justified. These programs include tree selection, seed orchard establishment and management, progeny testing and selective breeding.

The genetic gains from these programs for improved growth on low productivity sites can be increased by an estimated 5 percent and gains for high productivity sites can be increased by 10 percent in the first generation alone. For example, sites that will produce 50 board feet per acre per year can be increased to 53 board feet and sites producing 120 board feet per acre per year can be increased to 132 board feet.

Improved, high quality superior stock that has been developed in the genetic tree improvement program is being grown in the Forest Service nurseries. These improved seedlings are projected to increase growth and yields in the future by at least 10-15 percent.

Nursery Operations

Eleven bareroot and three container nurseries produce high quality seedlings to meet RPA goals and the requirements of the National Forest Management Act. These nurseries must produce seedlings that meet the specific species and seed source requirements peculiar to the individual areas to be reforested.

Eleven nurseries use the Nursery Management Information System (NMIS). This standard computer system maintains information and generated reports on seed quality and inventory and on seedling production and inventory. The computers are also used to streamline other operations, such as sowing calculations, work force management, fleet use, and inventories.

Operation of all but one nursery is funded through the Working Capital Fund (WCF). Production over the last 9 years has averaged 131.3 million bareroot and 6.3 million container seedlings. Production during FY 1985 was 117.1 million bareroot and 4.6 million container seedlings.

The production and management costs at each nursery are charged to WCF and are in turn repaid as a cost of seedlings in the reforestation program. Any new facilities at these nurseries are funded from facilities construction funds and turned over to WCF for operation and maintenance. The nursery improvement funding in this program is for the replacement, upgrading, and conversion of facilities not covered under the facilities construction program. Once the specific repair or replacement has been completed, the project is added to the working capital fund for that nursery. Once the facilities and improvements are completed at the one remaining non-WCF nursery, the operations will be turned over to the working capital fund.

Forest Service seedling production is supplemented through contracts with State and private nurseries which averaged 31.6 million seedlings over the past 9 years and 31.3 million during FY 1985. The combined production of bareroot seedlings and containerized stock will be about 162.0 million seedlings for the FY 1987 program.

Decrease for 1987		1987 <u>Base</u> (Dolla	1987 <u>Estimate</u> ars in thousan	Decrease
	Nursery and tree improvement operations\$ FTE	15,203 312	13,617 255	-1,586 -57
	A decrease of \$1,586,000 is	proposed from	n the 1987 bas	se.
	The proposed \$13,617,000 promanagement and \$11,635,000			
	The nursery management programmer production of high quality stree breeding zones.			
Object class information	Salaries and benefits Travel Transportation of things Supplies, materials, and equotient of the contractual services	uipment		-1,336 -5 -4 -71 -170
	Total	• • • • • • • • • • • •		-1,586

### Recreation Use

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Recreation management \$ with OMRF $\frac{1}{2}$ Million PAOT-days $\frac{2}{FTE}$	84,741  109.7 2,131	85,779  104.9 2,153	82,090   	85,779 (85,779) 104.9 2,153		-52,037 (-37) -5.9 -1,305
Wilderness management \$ Million acres FTE	7,746 32.1 222	7,845 32.1 222	7,508  	7,845 32.1 222	8,030 32.1 225	+185  +3
Cultural resource management\$ Million acres inventoried FTE	9,570 2.1 250	9,683 1.7 250	9,267  	9,683 1.7 250	9,368 1.6 244	-315 -0.1 -6
Total \$ 3/ FTE	102,057 225.4 2,603	103,307 225.0 2,625	98,865  	103,307 225.0 2,625	51,140 225.0 1,317	-52,167  -1,308

<sup>1/</sup> In FY 1987, recreation management is proposed to be supplemented by \$52,000,000 from Operation and Maintenance of Recreation Facilities (OMRF).

<sup>2/</sup> PAOT-day is the capacity of recreational facilities expressed as persons-at-one-time, multiplied by the number of days the facility is open.

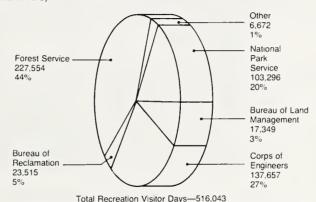
<sup>3/</sup> RVD is a recreation visitor-day.

### General

The National Forest System (NFS) occupies a land area 10 percent larger than Texas and provides more outdoor recreation than any other Federal property or single landholding. Of the 516 million visitor-days on Federal lands in FY 1984, 44 percent (228 million visitor-days) was provided by the Forest Service. This use ranges from opportunities provided to senior citizens camping at Forest Service campgrounds, to backpackers on remote hiking trails, to winter sports enthusiasts at commercially operated ski areas on National Forests.

The Forest Service coordinates with both businesses and other government agencies to ensure that programs are complementary and to avoid unnecessary duplication of facilities and services.

## 1984 Recreation Visitor-Days (RVDs) by Federal Agency (Thousand RVDs)



Source: Federal Recreation Fee Report 1984, Department of the Interior

### Recreation Management

#### Objective

To manage and protect the natural resources and facilities that accommodate the public's need for outdoor recreation, emphasizing opportunities to know and experience nature. To maintain, repair, restore, and existing facilities necessary to meet the rising demands for public outdoor recreation in natural settings. To use private sector capital financing through concession arrangements when appropriate.

## Program description

The Forest Service provides a variety of recreation opportunities for the public. The following recreation facilities must be operated and maintained to provide these opportunities.

	Number	<u>Capacity</u>
Family campgrounds	4,061	411,423
Group campgrounds	273	33,328
Family picnic grounds	1,275	85,626
Swimming sites	304	72,737
Boating sites	1,009	96,606
Interpretive and information sites	903	54,559
Winter sports sites	128	15,421

The National Forest System has a recreation facility capacity for 158 million PAOT-days. Historically, one-quarter of the total recreation use on NFS land has occurred at these facilities. Two-thirds of all recreation use occurs in the general forest area away from facilities. White-water rafting, backpacking, hunting, and fishing are very popular on the National Forests.

The Forest Service also issues and administers permits to the private sector to provide additional recreation opportunities. In FY 1985, the number of permits were:

	Number
Recreation residences	15,800
Winter sports resorts	174
Organization camps	485
Lodges and resorts	547

Privately operated facilities provide one-tenth of the total recreation use on NFS lands.

Major emphasis continues on providing efficient recreation opportunities and facilities. User fees will be charged at about 2,350 of the 6,250 NFS family campgrounds, group campgrounds, and swimming sites, as authorized by the Land and Water Conservation Fund Act of 1965, as amended. The remaining facilities either do not offer the amenities currently required by law for a charge area or fee processing is uneconomical due to size or location.

Funding requested for FY 1987 is based on a legislative proposal which would make \$52 million of receipts available to the Forest Service for use in the recreation program.

Decrease for 1987		1987 Base (Do	1987 Estimate ollars in thousa	Decrease nds)
	Recreation management \$ FTE	85,779 2,153	33,742 848	-52,037 -1,305
	Operation of maintenance of recreation facilities \$ FTE		52,000 1,307	+52,000 +1,307
	Total funding available \$ FTE	85,779 2,153	85,742 2,155	-37 +2
	A decrease of \$52.037.000 is	proposed	from the 1987 b	ase.

The decrease in appropriated funds is almost totally offset by the establishment of a new permanent appropriation account, Operation and Maintenance of Recreation Facilities, which makes Forest Service receipts available for program use.

The net decrease of \$37,000 in total funds available will allow the Forest Service to operate approximately 99.0 million PAOT-days of managed facility use. Emphasis will be on improved maintenance of the physical plant to slow deterioration of sites and facilities.

Object class information	Salaries and benefits Other contractual services	-34,419 -17,618
	Total	-52,037

#### Wilderness Management

Objective

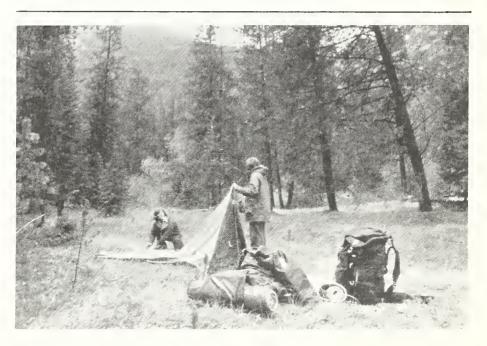
To protect and preserve wilderness resources and values while providing for a wide variety of users and minimizing potential conflicts among them.

Program description

The Forest Service manages 327 wilderness areas in 32 States, with a total acreage of about 32.1 million acres. This represents an increase of 163 wilderness areas from FY 1984. One acre in six of the National Forest System is now in the National Wilderness Preservation System. Recreation use of the 327 areas in FY 1985 was 12.7 million visitordays, 6 percent of all recreation use.

The Forest Service manages and coordinates a variety of wilderness uses, including grazing, mining, and outfitting and guiding.

To accomplish the stated objectives and comply with wilderness legislation, the Forest Service informs wilderness users of rules and regulations by maps, brochures, permits, and backcountry managers, many of whom are volunteers.



Wilderness camping.

Increase for 1987		1987 Base (Dollar	1987 Estimate s in thousands	Increase
	Wilderness management \$ FTE	7,845 222	8,030 225	+185 +3
	An increase of \$185,000 is pro	posed from t	he 1987 base.	
	This program level will provid needs of the 163 new wildernes	e for the hi s areas pass	ghest priority ed by the 98th	management Congress.
Object class information	Salaries and benefits Travel Supplies, materials, and equiponther contractual services	ment		+79 +8 +50 +48
	Total			+185

### Cultural Resource Management

#### Objective

To protect and manage the cultural resources on NFS lands and implement the requirements of the National Historic Preservation Act, the National Environmental Policy Act, the Archaeological Resources Protection Act, and USDA regulations. To help meet resource targets in timber, range, minerals, and special uses.

## Program description

The Forest Service employs archaeologists to direct and coordinate cultural resource work and advise land managers on matters involving cultural resources. Since 1971, field surveys have been conducted on approximately 16 million acres of NFS lands. Over 100,000 cultural resource properties have been recorded from these surveys, and from records and studies. Three hundred properties have been placed on the National Register of Historic Places and an additional 9,000 have been determined eligible for listing.

The loss of cultural resources to vandalism, pothunting, illegal digging, and theft is a great concern in many parts of the country. The Forest Service has been investigating and prosecuting pothunting cases since the mid-1970s. Since passage of the Archaeological Resources Protection Act (ARPA) in 1979, Forest Service special agents have been directly involved with many convictions under the ARPA in several States. In FY 1985, 1,513 citations were issued for violations of cultural resource laws and regulations and 208 arrests were made in more serious incidents.

In FY 1985, 89 percent of both acres surveyed and acres cleared were in support of timber, minerals, and energy resource development programs. Acres reported as surveyed are those acres actually examined. Acres cleared are those within a project's boundaries for which cultural resource compliance actions were concluded.

#### Decrease for 1987

	1987 <u>Base</u> (Doll	1987 Estimate ars in thousa	Decrease nds)
Cultural resource management\$	9,683	9,368	-315
	250	244	-6

A decrease of \$315,000 is proposed from the 1987 base. This program level will provide for inventory of 1.6 million acres.

The Forest Service will meet the inventory, evaluation, and mitigation requirements for National Forest activities with emphasis on timber, mineral, energy, and range programs. Law enforcement activities will be increased to reduce illegal digging and removal of artifacts on NFS lands.

Object class information	Salaries and benefits	-158 -12 -26 -48 -71
	Total	-315

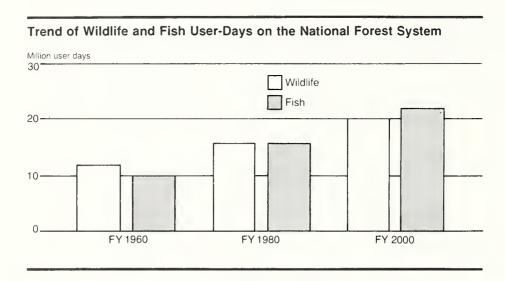
### Wildlife and Fish Habitat Management

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in			Inc.(+) or Dec.(-) from Base
Wildlife and fisheries administration and						
resource coordination \$	22,371 551	23,682 585	22,664 	23,682 585	23,360 582	-322 -3
Wildlife habitat						
improvement\$ Acres	6,300 110,973	6,719 110,250	6,430 	6,719 110,250	4,980 64,938	-1,739 -45,312
Structures		2,167		2,167		+81
FTE		162		162	129	-33
Resident fish habitat						
improvement\$	1,748	1,968	1,883	1,968	1,370	-598
Acres	10,504	7,370		7,370	3,954	-3,416
Structures FTE	2,078 35	2,410 40		2,410 40	1,240 30	-1,170 -10
112	33	40		40	30	10
Endangered, threatened, and						
sensitive species habitat improvement\$	2,464	2,470	2,364	2,470	1,235	-1,235
Acres	34,452	35,830		35,830		-20,508
Structures	260	950		950	193	-757 17
FTE	44	44		44	27	-17
Anadromous fish habitat						
improvement\$	3,843	3,855	3,689	3,855		-1,020
Acres Structures	1,863 2,157	1,929 901		1,929 901	1,038 1,160	-891 +259
FTE	56	56		56	45	-11
Total\$	36,726	38,694	37,030	38,694	33,780	-4,914
	838	887	37,030	887	813	-4,914 -74

#### General

The Forest Service manages more than 191 million acres of habitat for about 3,000 species of wildlife and fish. Half of the big game and coldwater fish habitat in the Nation occurs on National Forest System (NFS) lands and waters. The National Forest System will become increasingly important for wildlife and fish related recreation as private lands are converted to other uses and the costs of hunting, fishing, and nonconsumptive uses (birdwatching, etc.) on private lands increase.

In FY 1985, NFS lands provided about 32 million wildlife and fish user-days (12-hour days). The trend from FY 1960 to FY 1980, projected to FY 2000, is shown in the following figure. Public demand is expected to increase by 25 percent for hunting and 40 percent for fishing by FY 2000.





Fishing use is expected to increase by at least 40 percent on the National Forests by the year 2000.

The National Forest System provides most of the habitat for many fish and wildlife species, such as cutthroat trout, moose, black bear, elk, bighorn sheep, and mountain goats. About 80 percent of all the elk harvested in the United States (about 80,000 annually) comes from NFS lands. The range of wild turkey populations on the National Forests has been increased significantly in the past 30 years through cooperative programs with the States. NFS lands provide more than 50 percent of the rearing and spawning habitat for salmon and steelhead in California and the Northwest. NFS waters annually produce more than 118 million pounds of salmon and steelhead valued at over \$123 million. They have the potential to produce 190 million pounds of salmon and steelhead valued at \$229 million.

The National Forest System is key to the survival and recovery of many threatened or endangered species, such as the grizzly bear, woodland caribou, California condor, red-cockaded woodpecker, Lahontan cutthroat trout, and gray wolf. Habitats for 85 federally listed threatened and endangered species and 11 species proposed for listing are being managed on NFS lands. In compliance with the Endangered Species Act of 1973, as amended, the Forest Service conducts inventories, planned habitat protection and improvement programs, and other activities as the Agency's share of recovery objectives. The work is done in cooperation with the Fish and Wildlife Service, individual States, other agencies, organizations, and individuals. The sensitive species program provides special management attention to certain plants, fish, or wildlife to prevent reductions in habitat that would cause them to become federally listed as threatened or endangered.

The goal of habitat management on NFS lands is to maintain self-sustaining populations of existing native and desired nonnative vertebrate species, and to improve the habitat productivity of those species highly desired by the public, such as deer, elk, wild turkey, trout, bass, and salmon.

This goal is accomplished indirectly through habitat benefits from other resource management programs, such as timber and range management; directly through capital investments, which include such activities as seeding, planting, burning, and aquatic habitat development; and through cooperation with State fish and wildlife agencies.

A priority in wildlife and fish management is coordinating with other resource activities, such as timber sales, to ensure that complementary wildlife and fish benefits are achieved and that adverse impacts are minimized.

Another priority is addressing habitat needs of salmon and steelhead, waterfowl, threatened and endangered species, and other species either low in number or significantly affected by other resource management programs. Continued emphasis will be given to managing habitat for big game and resident fish on NFS lands.

Forest Service personnel work closely with other Federal, State, and local agencies in planning and performing activities that affect fish and wildlife on NFS lands. Comprehensive plans, displaying habitat improvement and maintenance needs to meet State objectives for wildlife and fish on NFS lands, have been prepared jointly with State fish and wildlife agencies in 42 States.

### Wildlife and Fisheries Administration and Resource Coordination

Objective

To administer the wildlife and fish program and provide wildlife and fisheries expertise in planning all activities that affect habitat, in order to minimize impacts or enhance habitat.

Program description

Administration of the program includes such activities as cooperation with State and Federal agencies and fish and wildlife interest groups, training for biologists, habitat surveys, habitat monitoring, and development of wildlife and fisheries information systems.



Cooperation with State and other agencies and organiza-tions, such as Ducks Unlimited (DU), is an important part of the wildlife and fisheries program. In FY 1985, three wetland habitat improvement projects funded by DU, such as this marsh, were completed on the Chippewa National Forest in Minnesota.

For resource coordination, wildlife or fisheries biologists work with other Forest Service resource managers to design projects or programs, such as timber sales, mineral developments, or livestock grazing. An example of wildlife habitat enhancement through resource coordination is a timber sale on a winter range specifically designed to increase big game forage. In most instances, resource coordination efforts of Forest Service biologists are designed to protect habitat or to minimize impacts of other resource management programs.

Decrease for 1987

1987	1987	
Base	Estimate	Decrease
(Do	llars in thousa	nds)

Wildlife and fisheries
administration and
resource coordination .. \$ 23,682 23,360 -322
FTE 585 582 -3

A decrease of \$322,000 is proposed from the 1987 base. Fish and wildlife support to timber management (including the reoffer of timber returned under P.L. 98-478, the Federal Timber Contract Payment Modification Act), land management planning, and other resources will be fully funded.

Support to other resource programs to provide for wildlife and fish surveys, mapping, inventory, and evaluation will be funded at levels to comply with the National Environmental Policy Act, the National Forest Management Act, and the Endangered Species Act. Recent judicial interpretations of these laws require increasingly precise analysis and habitat evaluations.

Increased efficiency and precision will result from greater use of wildlife and fish habitat models by which other resource activities may be evaluated. Several fisheries and big game habitat models will move from testing to operational phases. A continuing increase in use of cumulative effects will occur. These models provide a level of probability of the effects of other management activities on wildlife and fish habitat for a variety of species.

A reduction will occur in surveys and mapping of habitat for big game, upland bird, and cold water fish species. These projects will be prioritized to accomplish those which are done in coordination with the States to meet their needs for management and schedule those which are not as critical for future years.

Salaries and benefits	-88
Travel	-28
Transportation of things	<b>-</b> 9
Rent, communications, and utilities	-33
Supplies, materials, and equipment	-53
Other contractual services	-111
Total	-322

#### Wildlife Habitat Improvement

#### Objective |

To maintain the habitat carrying capacity for those wildlife species in public demand for consumptive or nonconsumptive purposes.

## Program description

Emphasis is on improving habitats that cannot be improved through the management of other resources, such as timber, and on mitigating impacts from other management activities. Wildlife habitat improvements include such activities as prescribed burning for bighorn sheep, elk, deer, and turkey; water developments for quail, chukars, and mourning doves; access management on existing roads to reduce habitat disturbance for elk, mountain goats, and black bear; nesting structures for wood ducks; and riparian and wetland improvements for waterfowl, wading birds, and other wetland associated species.

### Decrease for 1987

1987	198	37	
Base	Estir	nate	Decrease
	(Dollars in	thousands	)

Wildlife habitat

A decrease of \$1,739,000 is proposed from the 1987 base.

Accomplishments will be decreased from 110,250 acres of habitat improvement in FY 1986 to 64,938 in FY 1987, a decrease of 45,312 acres. The number of structures will increase from 2,167 in FY 1986 to 2,248 in FY 1987, an increase of 81 structures.

Emphasis will be on projects which mitigate losses from timber sales and other resource projects, and those which benefit several species, such as wetlands improvements and prescribed burning. Prescribed burning improves wildlife habitat for many species at a low cost per acre.

Salaries and benefits	-971 -93 -30 -108
Supplies, materials, and equipment	-172 -365
Total	_1 739

### Resident Fish Habitat Improvement

Objective

To maintain the habitat carrying capacity for those resident fish species in public demand.

Program description

Present activities maintain the capability of lakes and streams to support resident fish populations. Priority is given to direct habitat improvement projects, such as construction of low head dams to provide feeding and resting areas for fish. There is little opportunity to improve fish habitat through coordination with other resource activities, such as timber sales and range management projects.

Habitat improvement activities include installing artificial spawning reefs and fish shelters to improve lake habitats, creating sheltered pools in streams to increase fish holding capacity, and placing structures in streams to provide fish spawning and rearing habitat. The potential to increase fish habitat carrying capacity on NFS lands is estimated at 25 percent.



Stream habitat improvements, such as this log dam, are important to increase fish production and to satisfy rapidly growing public demand.

Decrease for 1987		1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousa	<u>Decrease</u> nds)
	Resident fish habitat improvement \$	1,968 40	1,370 30	-598 -10

A decrease of \$598,000 is proposed from the 1987 base.

Accomplishments will be decreased from 7,370 acres of habitat improvement in FY 1986 to 3,954 in FY 1987, a decrease of 3,416 acres. The number of structures will decrease from 2,410 in FY 1986 to 1,240 in FY 1987, a decrease of 1,170 structures.

The first priority for management will be projects in high productivity fish habitats that mitigate the effects of other activities, such as timber sales, minerals development, and livestock grazing. Projects which improve trout habitat will be second priority.

Object class information	Salaries and benefits	-292 -37 -12 -43 -68 -146
	Total	-598

### Endangered, Threatened, and Sensitive Species Habitat Improvement

Objective

To maintain the habitat carrying capacity for threatened and endangered plants and animals and viable populations of sensitive plants and animals, thus avoiding the need for Federal listing of these species.

Program description

Forest Service endangered species recovery responsibilities are guided by and coordinated with the legally mandated formal recovery plans prepared by the USDI Fish and Wildlife Service and the State fish and wildlife agencies.

Activities to avoid further losses of threatened, endangered, or sensitive species include prescribed burning to improve the habitat for the Kirtland's warbler in Michigan and the red-cockaded woodpecker in the Southeast; assisting the States and the Fish and Wildlife Service in reintroducing peregrine falcons; rehabilitating streams for threatened or endangered fish, such as the Lahontan cutthroat trout; providing facilities and technical guidance for the Puerto Rican parrot program; and identifying and mapping habitat for spotted owls and grizzly bears.



Management of peregrine falcon habitat and reintroduction of this endangered species on National Forest System lands are important to its recovery.

Decr	ease
for	1987

1987	1987	
Base	Estimate	Decrease
()	Dollars in thousan	ds)

-1,235

-17

Endangered, threatened, and sensitive species habitat improvement .... \$

..\$ 2,470 1,235 FTE 44 27

A decrease of \$1,235,000 is proposed from the 1987 base.

Accomplishments will be decreased from 35,830 acres of habitat improvement in FY 1986 to 15,322 in FY 1987, a decrease of 20,508 acres. The number of structures will decrease from 950 in FY 1986 to 193 in FY 1987, a decrease of 757 structures. This decrease will be partially offset by emphasis in planning and coordination to prevent or reduce adverse impacts that must be compensated for by habitat improvement.

Emphasis in habitat improvements will be for species in the most critical situations.

Recovery projects will be delayed for threatened, endangered, and sensitive species with stabilized populations and habitat.

Salaries and benefits	-499
Travel	-89
Rent, communications, and utilities	-103
Supplies, materials, and equipment	-194
Other contractual sérvices	-350
Total	-1,235

### Anadromous Fish Habitat Improvement

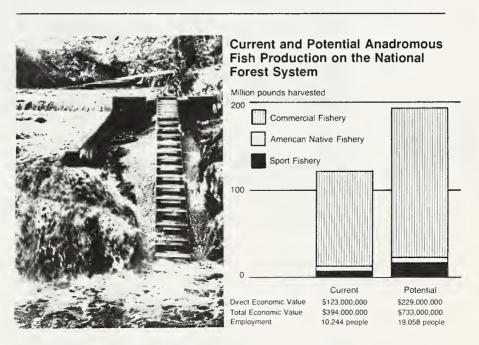
### Objective

To maintain the habitat carrying capacity and the production of anadromous fish for commercial use, sport fishing, and Native American subsistence.

## Program description

Present projects are intended to maintain the habitat carrying capacity for West Coast anadromous fish, such as spring chinook salmon and steelhead in the Columbia River Basin. Activities include removing fish barriers, placing stream habitat improvement structures, fertilizing lakes, and creating artificial spawning and rearing facilities.

This program is critical to restore spawning and rearing habitats degraded by development of other resources. By complementing the Northwest Power Planning Council and other fishery restoration plans, the Forest Service has an opportunity to move this resource to its full production potential. NFS waters could support an increase of 72 million pounds of anadromous fish (see following graph).



Habitat improvement projects such as this fish ladder constructed on the Tongass National Forest in Alaska, are important to increasing salmon and steelhead production from National Forest System lands.

Decr	ease	
for	1987	

1987	1987	
Base	Estimate	Decrease
(Do	ollars in thousand	ds)

Anadromous fish			
habitat improvement \$	3,855	2,835	-1,020
FTF	56	45	_11

A decrease of \$1,020,000 is proposed from the 1987 base.

Accomplishments will be decreased from 1,929 acres of habitat improvement in FY 1986 to 1,038 in FY 1987, a decrease of 891 acres. The number of structures will increase from 901 in FY 1986 to 1,160 in FY 1987, an increase of 259 structures.

The increase in structures is to partially offset the acreage decrease by completing habitat improvements which have a high fisheries productivity and a benefit cost ratio of approximately 3.5 to 1.0. Habitat improvements will include the construction of in-stream pool and riffle structures and erosion control structures along streambanks.

Highest priority will be given to projects that mitigate the effects of timber sales, minerals development, and livestock grazing. Projects that improve habitat for species of commercial value and that are coordinated with other agency efforts will receive second priority.

Salaries and benefits	-324
Travel	-84
Rent, communications, and utilities	-98
Supplies, materials, and equipment	-183
Other contractual services	-331
Total	-1.020

### Range Management

	1985 Actual	1986 Approp. Enacted to Date		Base	1987 Estimate	Inc.(+) or Dec.(-) from Base
Grazing program\$ Permitted livestock	24,691	24,238	23,196	24,238	25,595	+1,357
Grazing use (million AUMs)	10.1 626		man sole	9.8 615	9.8 632	+17
Range forage and structural improvements \$	2,320	2,182	2,088	2,182	769	-1,413
Forage improvement Thousand acres Structural improvement	80.5	65.4	<b>=0</b> =0	65.4	59.7	-5.7
Thousand acres in 1985 Structures in 1986 and 1987 FTE	1,549  41	1,988 38	700 min min min min min	1,988 38	2,290 16	+302 -22
Wild free-roaming horses and burros \$	176 3	274 4	262	274 4	275 4	+1
Noxious farm weed control . \$ Acres treated FTE	983 17,421 17	1,366 29,550 21		1,366 29,550 21	1,180 12,262 19	
Total\$ FTE	28,170 687	28,060 678	26,853	28,060 678	27,819 671	-241 -7

Summary of funds available for the range program:

	1985	1986	1986	1987
	Actual	<u>Planned</u>	DCA	Estimate
Range management	\$28,170	\$28,060	\$26,853	\$27,819
Range Betterment Fund	3,966	3,798	3,635	3,800
Total	\$32,136	\$31,858	\$30,488	\$31,619

### **General**

The Forest Service range program provides for sustained use by livestock and other herbivores; long-term requirements of wild horses and burros; and other ecosystem attributes, such as wildlife habitat, soil and water quality, watershed protection, and habitat for nongame species. The program emphasizes improving and maintaining resource productivity. It is guided by production efficiency analysis and the market value of forage. This program contributes to the quality of life for rural residents and communities that depend on National Forest System (NFS) range resources.

### Grazing Program

#### Objective

To contribute to the economic well-being of rural residents by promoting stability of family ranches and farms in areas with National Forests and National Grasslands. To produce range forage on NFS lands that contributes substantially toward meeting the Nation's food needs. To use NFS lands to demonstrate range management practices appropriate for use on associated private lands. To promote cooperation and coordination among farmers, ranchers, government agencies, and others interested in making the most effective use of ranges of all ownerships.

## Program description

Livestock grazing allotments encompass 105 million acres or 55 percent of the NFS lands in 36 States. About 51 million acres are suitable for livestock grazing; the remainder are unsuitable because of unstable soils, steep topography, or inherent low potential for forage production. Acres unsuitable for livestock grazing are often suitable habitat for wildlife species.

A 1977 analysis estimated that 70 percent of the 51 million acres suitable for livestock grazing were in satisfactory ecological status. (Ecological status for a site is the present state of vegetation and soil protection in relation to the potential natural community for the site.)

In FY 1985, there were 10,223 grazing allotments used by ranchers to graze cattle, horses, sheep, and goats. Eighty-six percent of the cattle permittees have base herds of 500 cows or less. In the West, NFS ranges supply an average of 25 percent of the permittee's annual requirements for livestock feed.

Revenue to the U.S. Treasury from the grazing program is expected to be about \$9.0 million in FY 1987. This value does not consider benefits to wildlife habitat, soil and water quality, watershed protection, and additional forage for nongame species, resulting from range management activities.

In FY 1985, improved management was started on 351 allotments. Improved management is started when one or more management actions prescribed in the allotment plan, such as fence construction, brush control, or livestock water developments, have been completed. In FY 1985, 71 percent of the allotments were under improved management and adequately maintained. Improved management is adequately maintained if the actions prescribed in the allotment management plan are carried out according to a schedule that will not permit regression in range condition. Comparable figures for the last five fiscal years follow:

	Total Allotments	Allotments with Improved Management Maintained		Imp	ents with roved it Started
1981	10,871	6,705	62%	677	6%
1982	11,069	6,886	62%	705	6%
1983	10,417	7,125	68%	534	5%
1984	10,296	7,018	68%	471	5%
1985	10,223	7,237	71%	351	3%

Incr	·e	ase
for	1	987

		1987	1987	
		Base	Estimate	Increase
		(Do	llars in thousa	nds)
azina program	¢	24 230	25 505	<b>±1</b> 357

615

632

+17

An increase of \$1,357,000 is proposed from the 1987 base.

FTĚ

This increase is offset by a decrease in the range improvement program. Emphasis will be on improving ranges by better management, which is a more cost-effective approach than capital investments in range improvements. The overall funding level will continue the grazing program at 9.8 million animal unit months.

The program will continue to emphasize permittees' assuming more responsibility for livestock grazing management activities, which includes the maintenance and implementation of allotment management plans.

In FY 1987, most allotments with improved management will be maintained by carrying out scheduled actions in allotment management plans to prevent regression in range conditions. Improved management will be started on a limited number of new allotments.

Salaries and benefits	+493 +79 +140 +279 +366
Total	+1,357

#### Range Forage and Structural Improvements

#### Objective

To improve the forage production capability of lands administered by the Forest Service to the extent that benefits are commensurate with costs. To maintain and improve soil and vegetation cover on NFS land to provide forage for livestock and other herbivores. To identify and measure the relevant economic effects of range improvement programs, projects, and practices.

## Program description

Range improvement means any facility or treatment constructed or installed for the purpose of improving the range resource or the management of livestock. Improvements include installation of both structural improvements, such as fencing and water developments, and nonstructural improvements, such as cover manipulation or plant control to improve forage conditions. These improvements often provide additional benefits, such as better wildlife habitat, soil and water quality, watershed protection, and additional forage for nongame species.

A major portion of the capital investments on National Forests in the 16 western States is financed from the Range Betterment Fund. Planning and administrative costs for these improvements are paid from the Range Management line item or other benefiting functions.

A major portion of the investments for range improvements on the National Grasslands is financed through Conservation Practices authorized by Title III of the Bankhead-Jones Farm Tenant Act of 1937 (P.L. 75-210).

Outputs and accomplishments are a combination of Range Management, Range Betterment Fund, and Conservation Practice activities.

#### Decrease for 1987

1987	1987	
Base	Estimate	Decrease
(Doll	ars in thousa	nds)

Range forage and			
structural improvement . \$	2,182	769	-1,413
· FTF	ે 38	16	-22

A decrease of \$1,413,000 is proposed from the 1987 base. This program level will allow investments in those situations that are cost effective and essential to sustaining a viable range program.

In addition to these funds, investments for range improvements on National Forests in the 16 western States will be financed from the Range Betterment Fund and, on the National Grasslands, through the Conservation Practices Program. The combination of Range Management, Range Betterment Fund, and Conservation Practices will allow for range forage improvement on 59,700 acres and the construction of 2,290 structures.

Salaries and benefits	-641
Travel	-71
Rent, communications, and utilities	-125
Supplies, materials, and equipment	-250
Other contractual services	-326
Total	-1,413

### Wild Free-Roaming Horses and Burros

### Objective

To manage, protect, and control wild free-roaming horses and burros on NFS lands to maintain a thriving natural ecological balance.

This program is pursuant to the Wild Free-Roaming Horses and Burros Act, P.L. 92-195 (85 Stat. 649, 16 U.S.C. 1331-1340), as amended by the Federal Land Policy and Management Act of 1976 (90 Stat. 2743), and the Public Rangelands Improvement Act of 1978 (92 Stat. 1803, 43 U.S.C. 1901).

## Program description

The Forest Service protects, manages, and controls about 1,500 wild horses and burros on NFS lands. Activities relating to wild horses and burros are coordinated with the Bureau of Land Management. Population levels to achieve management objectives are based on wild horse and burro forage and habitat requirements in coordination with wildlife, permitted livestock, and other uses. Excess animals are removed by authorized personnel. They are adopted by qualified people, who receive title after a year if their care proves satisfactory.

In FY 1985, 264 excess wild horses and burros were removed from designated territories. Scheduled removals for FY 1986 will keep most populations at a level that preserves and maintains a natural ecological balance.

#### Increase for 1987

1987		19	87	
Base			mate	Increase
( D	ollars	in	thousands	5)

Wild free-roaming			
horses and burros \$	274	275	+1
FTF	Δ	Δ	

A slight increase of \$1,000 is proposed from the 1987 base. This program level will allow for the removal of approximately 265 surplus animals. This number of removals will offset the natural increases to wild horse and burro populations in FY 1987.

Other contractual	services	+1
Total	• • • • • • • • • • • • • • • • • • • •	+1

#### Noxious Farm Weed Control

#### Objective

To control noxious weeds on NFS lands, including reimbursement to local, county, and State weed control authorities as provided in the Carlson-Foley Act of 1968 (43 U.S.C. 1241-43). To establish and maintain beneficial plant cover on NFS lands to maintain productivity and limit the invasion of specified noxious weeds onto adjacent private lands.

## Program description

Many States have enabling legislation authorizing counties and other jurisdictions to establish weed control districts covering all or part of a county. Weed control districts are concerned with control of noxious weeds within the district regardless of land ownership. Priority for use of program funds is to control noxious weeds on NFS lands when the weed district is controlling the same species of noxious weeds on private lands.

#### Decrease for 1987

	1987 Base (Dol	1987 <u>Estimate</u> lars in thousa	Decrease
Noxious farm weed control\$	1,366	1,180 19	-186 -2

A decrease of \$186,000 is proposed from the 1987 base. This program level will allow for treatment consistent with court decisions on the use of herbicides. Highest priority will be given to the prevention of invasion or reinvasion on NFS lands by noxious farm weeds and, in turn, infestation of associated private agricultural lands.

The Forest Service program will be coordinated with local weed control programs.

Salaries and benefits Travel Rent, communications, and utilities Supplies, materials, and equipment Other contractual services	-58 -12 -21 -41 -54
Total	-186

### Soil, Water, and Air Management

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousand	1987 Estimate	Inc.(+) or Dec.(-) from Base
Soil, water, and air operations \$	22,044 520	22,157 520	21,205	22,157 520	22,797 527	+640 +7
Soil and water resource improvement \$ Thousand acres	3,105 6.4 52	3,117 6.6 52	2,983  	3,117 6.6 52	1,225 2.0 27	-1,892 -4.6 -25
Soil and water resource inventories \$  Million acres  FTE	6,659 9.7 108	6,572 7.7 106	6,289  	6,572 7.7 106	4,765 4.8 87	-1,807 -2.9 -19
Total \$	31,808 680	31,846 678	30,477	31,846 678	28,787 641	-3,059 -37

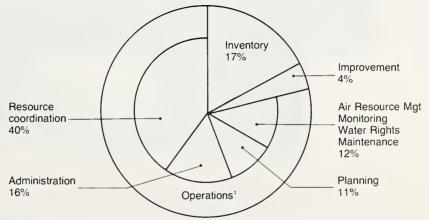
#### **General**

The objectives of the soil, water, and air management program are: to achieve water of suitable quality and quantity to meet public needs and desires; to provide for the continued production of other resources by protecting and enhancing soil productivity; and to comply with requirements of the Clean Air Act for maintaining or enhancing air quality.

Maintaining or improving soil, water, and air values results in direct benefits to the range, recreation, timber, wilderness, fish, and wildlife resources, as well as public enjoyment and use of these resources.

This program results in direct benefits to range, recreation, timber, wilderness, fish and wildlife resources, and the public enjoyment and use of these resources.

### Composition of Soil, Water, and Air Funding—FY 1987



Operations includes resource coordination, administration, planning, air resource management, monitoring, water rights, maintenance, and improvement

### Soil, Water, and Air Operations

Objective

To use soil, water, and air expertise in meeting overall resource production and environmental goals.

Program description

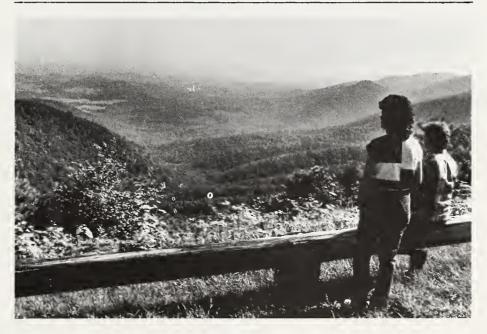
The program includes:

- Assisting activities such as timber sales, mineral development, livestock grazing, or recreation development through resource coordination. An example is evaluating potential soil erosion and water quality impacts of a road construction project, and designing conservation practices that will avoid damage to these resources.
- Monitoring soil, water, and air resources to determine whether goals for water and air quality and soil productivity are being met, and to provide a basis for identifying more effective management practices. This work is necessary to validate the effectiveness of practices in meeting goals and to meet the requirements of the National Forest Management Act, Clean Water Act, Safe Drinking Water Act, and Clean Air Act.
- Maintaining existing soil and water improvements to ensure their continued effectiveness.
- Identifying and quantifying water requirements to carry out management responsibilities on the National Forest System, and securing and validating water rights to meet these requirements through State procedures.
- Preparing emergency rehabilitation plans for lands damaged by wildfires, floods, or other natural disasters, as authorized by the Agricultural Credit Act (16 U.S.C. 2203). Approximately 125,700 burned acres were rehabilitated in FY 1985.



Example of successful flood rehabilitation project on the Monongahela National Forest in West Virginia. Stream channel and downstream facilities were damaged by a high intensity storm in 1965. Structures were necessary to stabilize the channel and allow natural revegetation of banks.

- Cooperating with other agencies in soil, water, and air resource activities on or directly affecting the National Forest System. This work includes water supply and flood forecasting; surveys of air quality, soil, and water quality; and management of public water supplies. In FY 1985, activities included participation with the Environmental Protection Agency in the western lake survey.
- Preparing soil and water improvement plans for lands in declining watershed condition. In addition to normal appropriations, this work is also authorized by the Lake Tahoe Basin Act (P.L. 96-586) and Knutson-Vanderburg Act (K-V), as amended. Approximately 12,000 acres were improved in FY 1985.
- Managing air resource through the review of preconstruction applications for private sector development under the prevention of significant deterioration (PSD) program. Significant activities included initiation of a study under the Virginia Wilderness Act in FY 1985.



Example of areas involved in air quality study required by the Virginia Wilderness Act. Note the regional haze impairment of background features.

Incr	ease
for	1007

1987	1987	
Base	Estimate	Increase
(Doll	ars in thousan	nds)

Soil, water, and air			
operations\$	22,157	22,797	+640
FTE	520	527	+7

An increase of \$640,000 is proposed from the 1987 base. This increase is necessary for the expanding program needs in air resource management, water rights, and municipal water supplies.

Air resource management funding includes review of the most urgent preconstruction applications for private sector development and partial completion of the study of the Virginia Wilderness Act required by P.L. 98-586.

The more critical water rights adjudication deadlines will be met.

Water quality monitoring requirements on the Bull Run municipal watershed will be met as established by P.L. 92-500.

The total program continues to place less emphasis on resource coordination, monitoring, and maintenance of watershed improvements and more on specific legal requirements in air and water management.

Salaries and benefits	+226
Travel	+50
Rent, communications, and utilities	+77
Supplies, materials, and equipment	+96
Other contractual services	+191
Total	+640

### Soil and Water Resource Improvement

### Objective

To improve soil productivity and water quality, and to provide for favorable conditions of waterflow.

## Program description

Soil and water improvement activities include installing erosion control structures, reshaping gullied land, and revegetating denuded areas.

These activities reduce erosion and improve soil productivity. Water quality is improved by reducing the movement of sediment and other pollutants to streams and lakes.

#### Decrease for 1987

	1987 <u>Base</u> (Dol	1987 <u>Estimate</u> lars in thousa	Decrease nds)
Soil and water resource improvement \$	3,117	1,225	-1,892
	52	27	-25

A decrease of 1,892,000 is proposed from the 1987 base. Part of this reduction in funds will be offset by a 1,288,000 increase in K-V soil and water improvement funding. The total program will allow treatment of 2,030 acres, as compared to 7,267 acres in FY 1986, primarily to improve soil productivity and water quality.

Salaries and benefits	-805
Travel	-131
Rent, communications, and utilities	-203
Supplies, materials, and equipment	-251
Other contractual services	-502
Total	-1.892

### Soil and Water Resource Inventories

### **Objective**

To provide information concerning soil and water capabilities and limitations for use in resource management and planning. This information is used to meet the basic stewardship responsibilities of ensuring long term soil productivity and the continued supply of high quality water.

## Program description

These inventories collect, describe, map, and interpret basic soil and water resource information required to manage the National Forest System for multiple use and sustained yield. Information provided includes:

- Soil productivity, and the resource potentials and limitations.
- Extent and location of soils having erosion and stability problems.
  - Water yield and quality, including timing of flows.
  - Stability of lakes and streams.

Soil inventories are conducted at different levels of intensity:

- Low intensity inventories provide information for planning and broad resource allocation. All lands should be inventoried at this intensity.
- High intensity inventories provide information for use in areas where intensive management is planned. About half of the NFS lands will be covered by these inventories.

Water resources inventories are conducted to meet identified management needs. They may provide information for beneficial uses, instream flow needs, management activities, or practices that would maintain and improve watershed condition.

1007 1007

#### Decrease for 1987

	Base	Estimate	Decrease
	(Dol	lars in thousa	nds)
Soil and water resource inventories\$	6,572	4,765	-1,807

106

A decrease of \$1,807,000 is proposed from the 1987 base. The total program will allow completion of 4,828,000 acres of soil and water inventories. This compares to 7,668,000 acres planned for inventory in FY 1986.

Salaries and benefits	-613 -144 -223
Rent, communications, and utilities  Supplies, materials, and equipment  Other contractual services	-225 -275 -552
Total	-1,807

### **General Administration**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (DOllars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Line management \$ FTE	42,650 896	43,260 891	43,017	43,260 891	43,992 886	+732 -5
Program support \$ FTE	116,119 4,826	112,436 4,581	103,669	112,436 4,581	111,954 4,472	-482 -109
Common services \$	100,075	106,418	104,157	106,418	101,050	-5,368
Total\$ FTE	258,844 5,722	262,114 5,472	250,843 	262,114 5,472	256,996 5,358	-5,118 -114

#### **General**

General Administration consists of managerial and support activities that cannot be readily identified with specific programs when they are planned.

For financial planning, budgeting, and accounting purposes, these activities are financed by the General Administration line item. This avoids the need to assess budget activities within National Forest System, Research, State and Private Forestry, Construction, and Land Acquisition appropriations for the cost of General Administration.

Discussions follow on administrative activities grouped under line management, program support, and common services. These administrative activities provide essential managerial and technical support to individuals and units involved in research and resource management and protection. These activities represent the General Administration cost which contributes to accomplishing Forest Service programs.

### Line Management

	1985 (Do	1986 Ollars in the	
Washington office \$ FTE	701	715	727
	14	14	14
Field offices\$	41,949 882		
Tota1\$	42,650	43,260	43,992
FTE	896	891	886

### **Objective**

To direct, manage, and coordinate Forest Service programs to ensure they are carried out efficiently and respond to national, regional, and local needs.

## Program description

Costs of the following line management positions, including secretarial support, are charged to General Administration:

- Chief, Associate Chief, and Deputy and Associate Deputy Chiefs of Administration and Programs and Legislation.
- Regional Foresters and Deputies for Administration or Deputy Regional Foresters in regions having only one primary deputy.
- Station Directors, Deputy Directors, and Assistant Directors for Planning and Applications and Support Services.
  - Area Director, State and Private Forestry.
  - Forest Supervisors and Deputy Forest Supervisors.
  - District Rangers.

	o roar roa mangar st				
Increase for 1987		1987 <u>Base</u> (Doll	1987 <u>Estimate</u> ars in thousar	Increase	
	Line management \$ FTE	43,260 891	43,992 886	+732 -5	
	An increase of \$732,000 is p	roposed from	n the 1987 base	<b>2.</b>	
	The \$732,000 increase is due GS/GM positions being upgradincrease more than offsets t	led and chang	ges in SES grad		ie
Object class	Salaries and benefits	• • • • • • • • • • • • • • • • • • • •	• • • • • • •	+732	
THE OF MICE TOTAL	Total			<b>+732</b>	

### Program Support

Washington office	1985	(Dollars in thou	<u>1987</u> sands)
Legislative affairs \$ FTE		532 12	531 12
Program development and budget\$	1,258	1,417	1,414
	32	31	30
RPA, environmental coordination, and policy analysis\$	1,214	1,298	1,295
FTE	29	28	27
Personnel management \$ FTE	1,909	2,069	2,064
	59	55	51
Civil rights \$ FTE	385	391	390
	9	9	9
Volunteer and hosted human resource programs \$	308 4	275 <sub>.</sub>	27 4 4
Computer science, communications and information systems			
management\$	3,053	2,960	2,953
	74	72	71
Procurement and property management \$	1,019	1,057	1,054
	26	27	26
Accounting, fiscal management and law enforcement \$	1,608	1,642	1,638
	41	39	38
Management analysis and support\$	1,100	1,188	1,186
	22	25	24
Public information and involvement\$	1,385	1,348	1,345
	36	36	35
Other WO support services \$	281 8	344	343 9
Total, Washington office . \$	14,050	14,521	14,487
FTE	352	347	336
Field offices \$	102,069	97,915	97,467
	4,474	4,234	4,136
Total, program support \$	116,119	112,436	111,954
FTE	4,826	4,581	4,472

### Program Support

#### Objective

To provide the necessary support to efficiently and effectively carry out Forest Service programs and respond to the Executive Branch and Congress on policy and budget matters.

## Program description

Program support funds are for salaries, travel, training, and career development of program support staffs.

Program support staffs include program planning, development, and budget; RPA coordination; information offices; personnel management; administrative services; administrative management; fiscal and accounting; civil rights; and other general-purpose support staff.

As explained under "Program Support Activities at Field Offices" at the end of this section, several Washington office staff activities described as general administration do not exist at the field level or are more readily identified with the benefiting program at that level, and are funded as such.

#### Legislative Affairs

Legislative affairs has the primary responsibility for analyzing proposed legislation and providing information to assist the Executive Branch and the Congress in considering and enacting needed legislation.

In carrying out this responsibility, legislative affairs personnel:

- Prepare proposals for new or amended legislation as part of the Department's legislative program (20-25 proposals per year).
- Prepare reports stating the Department's position on proposed legislation in response to requests from congressional committees or from the Office of Management and Budget (80-90 legislative reports per year).
- Prepare testimony and supporting briefing materials for Departmental witnesses in preparation for congressional hearings. Prepare followup information that committees may request (50-60 hearings per year).
- Respond to telephone requests from congressional offices for information on Forest Service programs and activities (1,000-1,500 calls per year).
- Keep Forest Service personnel informed on the status of legislation, and provide information and training for understanding the legislative process.

Program Development and Budget

Program development and budget is responsible for developing annual Forest Service budgets which reflect specific program objectives, outputs, targets, and work force and funding requirements.

The budget proposals reflect on-the-ground needs as identified in land management plans and provide the basis for presenting and justifying Forest Service programs to the Department, Office of Management and Budget, and Congress.

Once the appropriation bill is signed, work accomplishments are tracked periodically in relation to funded program objectives and output targets. At the end of the year, an evaluation of work completed and dollars obligated is prepared and presented to management. These evaluations are used as a basis for future budget development.

Tasks involved in this process are:

- Program development and analysis. Field units' develop budget proposals based on annual planning direction, land management plans, and local plans. Based on analysis of program cost effectiveness and an assessment of overall national needs, budget alternatives are developed at each organizational level and used in developing alternative national proposals for the Forest Service.
- Budget documents and presentation. Forest Service budget proposals are negotiated with the Secretary of Agriculture and the Office of Management and Budget and are incorporated into the President's annual budget. Detailed explanatory notes, witness statements, briefings, and display material are prepared to explain and justify the budget.
- Budget execution. Funds, targets, and personnel ceilings are allocated to field units according to direction in the Appropriation Act and Committee reports. Periodically, financial needs are projected and requests submitted for apportionments and outlay ceilings. Reprogramming requests are prepared. Emergency funding needs are handled as they occur during the year. Close coordination is required with sponsor agencies that transfer funds to the Forest Service to carry out such programs as Job Corps, watershed planning, and flood prevention.
- Accountability and control. Periodically, the staff reviews field units' program planning and budget activities and conducts necessary training. Quarterly, the staff analyzes program target accomplishments relative to plans and expenditure of funds. Results are presented to line officers with recommendation for followup action.
- Annual Report to Congress. As required by the Forest and Rangeland Renewable Resources Planning Act of 1974, an annual report is prepared to analyze Forest Service accomplishments and resource conditions relative to the recommended RPA Program. The report is submitted to Congress.

Resources Program and Assessment
The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)
requires the Secretary of Agriculture to assess the Nation's renewable
resources situation every 10 years. This assessment projects the
future demand and supply of renewable resources on all forest and
rangeland in the United States. The most recent assessment was
prepared in 1979 and supplemented in 1984.

The RPA also requires the Secretary to prepare a long term Program every 5 years in response to the assessment. Based on analysis of several alternatives, cost effectiveness, and public comments, the Secretary selects a recommended RPA program that includes an output and funding level for Forest Service programs. The Act requires coordination with other Federal and State agencies and organizations to avoid duplication of effort. The program becomes the basis for future budget proposals. A program was sent to Congress in 1980; the 1985 program update is currently being reviewed in the Administration.

The RPA staff will complete the following major tasks in FY 1987:

- Development of the 1989 Assessment. Assembling final data for the assessment to ensure a complete resource-by-resource data base as of January 1, 1987. Completing special studies, including new analyses for resource-by-resource supply-demand evaluations; determination of nonmarket value revisions; determination of how future analysis and uncertainty will be handled in the assessment process; and multiresource analysis, including methods for display of impacts and relationships in the assessment. Producing the draft assessment document, including displays and tables.
- Development of the 1990 RPA Program. Defining and reviewing resource goals. Developing draft needs, opportunities, and implications to present with alternative goals for public review and comment. Developing options for presenting program alternatives and determining a final array of alternatives.
- Analysis of RPA information base. Comparing and analyzing new data from forest management plans, state forest resource plans, and identified research needs to prepare for revising the data base for the 1990 RPA. Preparing and field testing a draft field guide containing the technical instructions for development of the 1990 Program data base. Distributing the final field guide and training personnel in its use. Identifying, preparing, and testing analytical systems used in the process. Preparing socioeconomic analyses and final resource values.
- Briefings and discussions. Helping maintain ongoing discussions and reviews with congressional staffs, other agencies, national interest groups, and others. Developing a public participation plan to ensure public involvement throughout the 1990 Assessment and Program development process.

# Environmental Coordination At the national level, the environmental coordination staff:

- Provides national direction and leadership to field units and the Washington office on implementation of the National Environmental Policy Act (NEPA) and coordination for environmental programs. Examples include establishing agency policies and procedures, developing training programs, reviewing environmental documents, and conducting field reviews to monitor compliance.
- Coordinates with the Environmental Protection Agency (EPA), Council on Environmental Quality (CEQ), and other Federal agencies on environmental matters affecting natural resources and the National Forest System.
- Advises the Chief on national policies to implement NEPA, and provides technical assistance to the Washington office and field offices in carrying out NEPA responsibilities.
- Provides national leadership, technical assistance, and guidance in social sciences to ensure consideration of social factors in Forest Service programs and activities. Examples include developing policies, procedures, and source materials, and conducting periodic field reviews to evaluate results.

- Trains Washington office and field personnel in NEPA responsibilities and procedures, including CEQ regulations, and Forest Service policy. During FY 1987, Service-wide implementation of revised Forest Service NEPA procedures will be monitored to attain expected increases in productivity and new efficiencies in carrying out the NEPA process. Agency proposals and their alternatives will be carefully evaluated to ensure that environmental analyses focus on the most important issues, that appropriate documentation is used when necessary, and that other NEPA requirements are met.
- Evaluates and recommends needed changes when deficiencies exist in Agency procedures for:
- 1. Mitigating potentially adverse impacts from proposed Agency actions.
- 2. Monitoring program and project implementation to ensure desired outcomes.
- 3. Addressing cumulative environmental effects, such as those produced when multiple development activities occur at the same time within the same geographical area.
- 4. Making resource decisions when relevant information is incomplete or uncertain.

Policy Analysis
The policy analysis staff does in-depth analyses and examines high
priority policy issues. The general approach is to collect pertinent
data, do an objective analysis, and develop and evaluate alternatives
for consideration by policy makers. Work assignments consist of the
following:

- Responding to requests from USDA, OMB, and the Congress to perform special analyses and studies on policy issues of national and/or international concern. Examples include examining the current situation and trends in recreation use and investment on National Forests, examining the use of outdoor recreation values in planning, and developing effective means to display benefits and costs associated with Forest Service timber sales.
- Development or revision of Forest Service policies in response to changing conditions and public needs. As policies are questioned, high priority policy issues are assigned to the staff to develop alternatives needed for making decisions on policy matters. Examples include analyzing costs of reforestation on NFS lands, timber sale program accounting, and community dependency on Federal timber sales.
- Evaluation of Forest Service programs to determine whether they are meeting public needs and expectations efficiently and providing public benefits. Priority program evaluations are assigned where detailed economic, efficiency, and public need analyses are required. The results are used to determine whether program changes are needed. Examples include the management of Knutson-Vandenberg reforestation funds, a review of systematic analysis training, and econometric forecasting of recreation maintenance needs.

Personnel Management

The personnel management staff develops and manages the personnel programs of the Forest Service. This involves formulating objectives, policies, and guidelines for nationwide activities. More specifically the staff:

- Develops policies and guidelines for position classification, merit promotion, performance evaluation, internal placement, upward mobility, cooperative education, summer and seasonal employment, and special emphasis programs designated to meet the employment needs of handicapped, disadvantaged, and others covered by statute and regulations.
- Develops policies and programs to implement incentive awards, orientation, training, and planned employee development programs.
- Develops, administers, and evaluates a program of occupational health and safety for employees.
- Provides advice and assistance to field offices for all personnel functions and technical assistance concerning labor relation activities.

Civil Rights

The civil rights program supports all Forest Service activities that by law require equal employment and equal access for all citizens. Civil rights concerns are part of every major activity in the Forest Service.

The Forest Service's equal employment opportunity program objectives are: (1) to eliminate discrimination in employment for all qualified persons, and (2) to promote the full realization of equal employment opportunity through an affirmative action program.

The Agency's progress in equal employment opportunity since 1976 is as follows:

	FY 1976		FY	1985
	Number	Percent	Number	Percent
Total employees Minority Women	28,502 2,208 6,164	7.8 21.6	32,716 3,697 9,714	11.3 29.7
Total Professional Minority Women	7,928 218 137	2.8 1.7	10,596 626 1,171	5.9 11.1
Total administrative/technical Minority Women	8,017 573 1,205	7.2 15.0	15,845 1,963 4,232	12.4 26.7

Volunteers and Hosted Human Resource Programs

The Forest Service provides opportunities for individuals to participate in its activities through the Volunteers in the National Forests and hosted human resource employment programs. The administration of these programs is financed from General Administration.

These programs provide opportunities which help reduce the backlog of conservation work. Some Forest Service activities which benefit from such programs are recreation, wildlife management, emergency activities, timber stand improvement, erosion control, and other land and water conservation work. In FY 1985, volunteers did work valued at \$77.5 million.

Volunteers are of various ages and backgrounds. Adults are provided the opportunity to use their skills and talents in meaningful activities, and many young enrollees are given the opportunity to acquire their first gainful work experience.

In FY 1985, 45,907 persons participated in the Volunteers program. Of the total participants, 6,690 were Touch America Program (TAP) enrollees, aged 14-17. TAP is a partnership of private sector organizations sponsoring teenage youths to do conservation work. The Volunteers contributed 1,787 person-years of work valued at \$22.5 million.

In hosted programs, the Forest Service serves as a host agency for cooperative programs administered primarily by State and local governments. During FY 1985, 8,603 persons participated in these cooperative programs. Participants accomplished 741 person-years of conservation work valued at \$8.7 million.

Computer Sciences, Communications, and Information Systems Management The primary objective of the Forest Service's information resources management is to improve the efficiency, effectiveness, and productivity by increasing the availability and usefulness of natural resource and administration information to Forest Service management and the public.

Support is provided through current and emerging information resources management technology, concepts, and principles to support the mission of the Forest Service at each organizational level in a cost effective manner. Specific functions are to:

- Make information more effectively serve the organization in National Forest management, research, and State and private forestry.
- Reduce costs by improving the availability and accessibility of information in support of the Forest Service mission and Resources Planning Act program goals.
- Improve communication, decisionmaking, and support for programs through the expansion of Service-wide systems for distributed processing and graphics capabilities.
- Use the latest information technology for the management of forms, reports, and records.
- Provide computer technology for information storage and retrieval.
- Reduce costs and improve operation of radio and telecommunications.
- Provide integrated information processing capabilities throughout the Agency.

Procurement and Property Management
This activity provides support to Forest Service managers for
acquiring, using, and disposing of a wide variety of goods and services
on time and within the framework of laws, regulations, and sound
business practices. Procurement and property managers:

- Plan and direct procurement, space management, and property management programs to respond to program needs.
- Develop directives and other guidelines to conform with Federal laws and regulations.
- Provide criteria and guidelines for delegating contracting authority to subordinate units.
- Maintain liaison with vendors, manufacturers, and trade associations to stay abreast of new technology and market developments.

Accounting, Fiscal Management, and Law Enforcement
This activity is concerned with developing guidelines and implementing
an integrated budget and accounting system consistent with the
requirements of the General Accounting Office, Office of Management and
Budget, Department of the Treasury, and Office of the Secretary of
Agriculture. Specific functions are providing national guidance,
oversight, and direction for:

- Financial control systems, with emphasis on fund accountability, receipt collections, voucher auditing, and disbursements.
- Financial assistance programs, including payments to States and counties consistent with laws and regulations.
  - Cash and debt management activities.
  - Investigations and claims for and against the Government.
- Law enforcement activities to protect Forest Service employees, natural resources, and Federal property on the National Forest System.

A major effort in FY 1987 will be to improve the financial and accounting information system to make it more responsive and more efficient for management.

Management Analysis and Support
This activity includes management improvement, organization structure
and workforce evaluation, program review and audit coordination, and
primary staff support to major management improvement initiatives.

- Coordinating national efforts to reduce costs and improve effectiveness through work simplification, work measurement, methods and procedures, and benefit-cost analysis.
- Providing assistance in evaluating unit consolidation proposals, major changes in organizational structure, staffing levels, and skills requirements.
- Coordinating and ensuring timely followup action on management reviews and Office of Inspector General and General Accounting Office audits. Improvement of management controls to prevent waste, loss, and misuse, and to meet the requirements of the Federal Managers Financial Integrity Act and OMB Circular A-123.

- Establishing and adjusting rental rates for approximately 4,500 housing units each year in accordance with 5 U.S.C. 5911.
  - Administering the advisory committee management program.
- Managing the employee suggestion program in accordance with P.L. 92-463 and P.L. 95-112.
  - Processing applications for patents.
  - Preserving and documenting historical data and materials.
  - Coordinating national meetings.

#### Public Information and Involvement

The Forest Service's public information and involvement activities are devoted primarily to informing the public about the management of the National Forest System and about the natural resource attributes of these lands. These activities convey the results of the Agency's research activities also to a broad segment of the general public. Public involvement activities ensure that citizens are included in Forest Service policy development and decisionmaking.

The role of information dissemination in carrying out the Forest Service's mission has been prescribed in legislative authorities and directives, including the Organic Act, National Environmental Policy Act, Forest and Rangeland Renewable Resources Planning Act, and the National Forest Management Act.

To carry out these responsibilities, the Forest Service has a staff of professional specialists in press, radio, television, audiovisuals, publishing and printing, public involvement, and environmental education to provide information on subjects of major interest, as well as to transfer highly technical information to research organizations, universities, industry, and cooperators.

This staff also administers the Woodsy Owl environmental education program and carries out a variety of internal communication efforts.

Other Washington Office Support Services

The international forestry staff provides general administrative support by coordinating international forestry programs and activities with international organizations, foreign governments, other Federal departments and agencies, and nongovernment groups. This staff monitors and manages all Forest Service foreign travel, arranges Forest Service participation in international meetings, represents the Chief and top staff in interagency meetings dealing with foreign forestry affairs, serves as liaison and principal contact point with foreign countries through their embassies and consulates, and cooperates with numerous associations and societies on international forestry matters.

State and private forestry coordinates Forest Service defense and emergency operations. The Forest Service is responsible for preemergency preparedness and emergency operations on Federal and non-Federal lands for prevention and control of fires; production of timber from all lands; determination of damage to forested areas resulting from enemy attack or natural disaster; emergency protection, management, and utilization of National Forest resources; emergency production, availability, and utilization of timber and timber products; determining and reporting resources needed to carry out emergency activities; and defense preparedness and emergency operations relating to management and utilization of forest resources and rural fire protection.

Program Support Activities at Field Offices
Field offices have most of the program support activities and staffing
previously described for the Washington office. The activities and
staff occur in Region, Station, Area, and Forest Supervisors'
headquarters, and to a lesser extent, at research field locations and
Ranger Districts. There are some exceptions, such as RPA (except the
overall coordination) and environmental coordination. These
activities, when performed at locations other than the Washington
office, can be readily identified with the benefiting activity and are
not properly classified as general administration.

Within some of the administrative groups, activities can also be readily identified with the benefiting program and are funded accordingly. Examples are timber sale accounting, timber cost collection, and concessionaire audits performed by fiscal and accounting management groups. Conversely, positions may be located in areas other than the typical administrative units which cannot be readily identified with the benefiting program. When such administrative duties exceed 20 percent of the individual's workload, they are funded from general administration. An example is a forest fire staff officer who has safety and health responsibilities exceeding 20 percent of his or her workload.

All Ranger Districts have at least one clerk funded by general administration. Large districts may have an administrative assistant, one or two clerks, and a procurement specialist funded by general administration.

Many research field locations also have business management personnel funded from general administration. Where research locations are funded by a single research line item, however, business management support is charged directly to that program.

Job Corps Centers are further examples of funding by the benefiting program instead of general administration.

Decr	ease
for	1927

	1987 <u>Base</u> (Dol1	1987 <u>Estimate</u> lars in thousa	Decrease nds)
Program support \$ FTE	112,436	111,954	-482
	4,581	4,472	-109

A decrease of \$482,000 is proposed from the 1987 base. This reflects the continuing implementation of recommendations of a national administrative team appointed in response to the Administration's management improvement initiatives.

The 109 FTE reduction is part of an agreement between the Secretary of Agriculture and OMB to reduce Forest Service administrative staffing by 603 FTEs between FY 1985 and FY 1989.

Object class	Salaries and benefits	-482
Intornation	Total	-482

#### Common Services

	1985 (Dollars	1986 s in thousar	1987 nds)
Rents, communications, and utilities	\$ 40,144	\$ 43,391	41,095
Contractual services	9,098	9,908	9,102
Equipment and supplies	15,669	17,323	13,531
Office of Workers' Compensation Program	11,569	12,247	12,772
National Finance Center	20,098	19,889	21,000
Other USDA services	3,497	3,660	3,550
Total, common services	\$100,075	\$106,418	\$101,050

#### Objective

To finance those nonpersonal services that support the general administration organization or that otherwise meet the definition of General Administration in that they cannot be identified with a specific program.

## Program description

#### Rents and Utilities

These are space rentals and utilities for facilities owned or leased by the Forest Service. General administration is responsible for that portion occupied or used by general administration personnel and equipment. Total office space owned or leased by the Forest Service is 4 million square feet. In addition, nearly 4 million square feet is covered by the standard level user charge for which payment is made to GSA. General administration pays only for its share of that space.

#### Communications

Communication services funded in Common Services include the transmission of messages and data from place to place, e.g., contractual charges for radio and wireless telegraph service, telephone and telegraph services, switchboard charges, telephone installation costs, and rental of teletype equipment.

Postage and mail are included in the communications category. Forest Service policy is to classify mail at the lowest rate possible consistent with the mailer's need and to manage mail to provide the most effective, economical, and reliable service. Payment for postage and mail is based on the exact amount recorded by metered mail systems.

#### Contractual Services

This includes obligations for budget object class 25 (other services) except those that are otherwise specifically identified, such as the National Finance Center. Included are publication of notices, tuition, operation of facilities or other service contracts, storage of household goods, office equipment repair, maintenance contracts, and automated data processing (ADP) on-line retrieval services, other services, and supplies.

### Equipment and Supplies

Most general office supplies are charged to general administration because they cannot be readily identified with the user at the time they are ordered. The general administration portion of Data General equipment acquisition is included.

Office of Workers' Compensation Program (OWCP)

Administered by the Department of Labor, this program provides compensation benefits to civilian employees of the United States for disability due to personal injury sustained while in the performance of duty or for work related illness. Benefits also are provided to dependents if the illness or injury results in the employee's death.

Beginning FY 1987, those OWCP charges directly identified to fire cases will be paid from applicable fire funds. In future years, all OWCP will be paid from those program funds where injuries occurred.

National Finance Center

This USDA service center provides payment and accounting services for agencies of the Department. The Forest Service obtains such services as complete administrative payment processing, payroll computation, payment, and related reports, plus required accounting records and financial reports. Using the revolving fund financing principle, the center establishes use rates to recover costs based on the volume of documents processed for each agency. The budget for the center is included and justified in the USDA and Related Agencies Appropriation Act.

Other USDA Services

This covers the miscellaneous services provided for the Forest Service by the Department. Examples are growth capital, video film center, various personnel programs, and the design center. The costs are distributed to the agencies based on the volume of business generated by each agency.

Decrease for 1987

1987	1987	
Base	Estimate	Decrease
(Dol	lars in thous	ands)

Common services ...... \$ 106,418 101,050 -5,368

A decrease of \$5,368,000 is proposed from the 1987 base and is summarized below.

Rents, communications, and utilities costs are expected to decline by \$2,296,000. This results from a \$1,296,000 reduction in GSA space costs, a \$400,000 reduction in Federal Telecommunication System (FTS) costs, and a \$600,000 reduction in non-GSA rents and utilities brought on by reduced space needs. U.S. Postal Service costs are expected to remain the same.

Equipment and supplies costs will be reduced by \$3,792,000. This includes a \$2,513,000 reduction in FLIPS acquisition from general administration funds. The balance of the reduction will result from reduced purchases of miscellaneous equipment and supplies for the General Administration organization.

The most recent USDA estimate shows an increase of \$525,000 for Office of Workers' Compensation Programs.

National Finance Center costs are expected to increase by \$1,111,000. This increase is offset by savings from other Department estimates, leaving a net increase of \$195,000.

Object class information

Salaries and benefits (OWCP)	+525 -2,296 -3,792 +195
Total	-5,368

## Forest Service/BLM Interchange

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA <u>Reduction</u> (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
FS/BLM Interchange\$					5,000	+5,000
FTF						

#### **Objective**

To improve service to the public, and to improve administrative efficiency and thereby reduce the overall costs of managing Federal lands.

# Program description

The Forest Service (FS) and Bureau of Land Management (BLM) each have jurisdiction over various tracts of public land in the western United States, many of which are in the same general vicinity. Likewise, the agencies have staff and offices in most of these locations to carry out the work for which they are responsible.

This budget includes funding to implement an interchange of land management assignments between the FS and BLM so a single agency will have administrative responsibility over all lands within a specific geographic area. This will result in the consolidation of a number of existing offices, improved service to the public, and more cost efficient and effective operations.

One-time administrative costs of \$5,000,000 will be incurred during FY 1987 in order to implement the proposal. One-time expenses include costs of consolidation of office locations, relocation expenses for some employees, and other administrative costs necessary for such a reorganization.

Total implementation costs in FY 1987 are projected to be \$7.1 million. These costs are expected to be partially offset by \$2.1 million in savings that will be realized in other accounts. The \$5.0 million requested represents the net of total FY 1987 costs and savings. Remaining costs (\$2.1 million) will be charged to those accounts where the savings are expected to accrue.

The proposed jurisdictional interchange is currently projected to result in a decrease of 55 FTEs for the FS in FY 1987, as reflected in the overall FTE ceiling.

The costs and savings projected here are preliminary estimates, and they are expected to change as final adjustments take place. The BLM and FS are preparing a legislative proposal for the interchange that is expected to be submitted to Congress in February, 1986. Following congressional action on the proposal, it will be necessary to prepare and submit revised or amended budgets to reflect both actual implementation costs and the expected effects on the programs.

Some reprogramming adjustments within both BLM and FS accounts may be required once jurisdictions are actually transferred between agencies.

# NATIONAL FOREST SYSTEM PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-1106-0-1-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
	Direct program:  1. Land and resource protection.  2. Renewable resource management and utilization  3. General administration  Total direct program	453,036 425,447 239,677 1,118,160	425,560 399,618 225,122 1,050,300	360,290 338,500 190,595 889,385
	Reimbursable program	145,235	137,000	116,000
10.00	Total obligations	1,263,395	1,187,300	1,005,385
	Financing:			
11.00 14.00 21.40	Offsetting collections from: Federal funds Non-federal sources Unobligated balance available, start	-105,339 -39,896	-99,400 -37,600	-84,200 -31,800
24.40	of year Unobligated balance available, end	-474	-4,746	-2,747
25.00	of year Unobligated balance restored	4,746 -10,884	2,747  1,048,301	2,850
39.00	Budget authority	1,111,548	1,048,301	889,488
40.0001 40.0002 43.0001	Budget authority: Appropriation	1,111,548  1,111,548	1,054,629 -6,328 1,048,301	889,488  889,488
	Relation of obligations to outlays:			
71.00 72.40 74.40	Obligated balance, start of year Obligated balance, end of year	1,118,160 76,532 -131,518	1,050,300 131,518 -101,503	889,385 101,503 -76,278
90.00	Outlays	1,063,174	1,080,315	914,610
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
Р	nacted/Requested: Budget authority Outlays roposed for later transmittal under proposed legislation:	1,111,548 1,063,174	1,048,301 1,080,315	889,488 914,610
	Budget authority		••••	5,000 4,000
	Budget authority	• • • • •	165,700 165,700	••••
K	Budget authority	• • • • •	-45,077 -39,068	-6,009
Ţ	Otal: Budget authority Outlays	1,111,548 1,063,174	1,168,924 1,206,9 <sup>47</sup>	894,488 912,601

NATIONAL FOREST SYSTEM
OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-11060-1-302	1985 actual	1986 est.	1987 est
	Direct obligations:			The second secon
11.1	Personnel compensation: Full-time permanent	479,824	489,466	423,455
11.3	Other than full-time permanent	89,388	91,151	76,348
11.5	Other personnel compensation	60,295	61,501	52,363
11.8	Special personnel service payments	15,262	15,595	12,676
11.9	Total personnel compensation	644,769	657,713	564,842
12.1	Personnel benefits: Civilian	89,242	91,034	78,180
13.0	Benefits for former personnel	11,956	12,196	10,551
21.0	Travel and transportation of persons	30,111	25,545	18,692
22.0	Transportation of things	9,338	7,922	5,797
23.1	Standard level user charges	16,127	17,508	14,682
23.2	Rental payments to others	9,830	8,339	6,102
23.3	Communications, utilities, and miscella- neous charges	36,253	30,755	22,504
24.0	Printing and reproduction	4,402	3,734	2,732
25.0	Other services	172,419	116,274	107,031
26.0	Supplies and materials	53,458	45,351	33,184
31.0	Equipment	29,988	25,441	18,616
32.0	Lands and structures	7,578	6,429	4,704
41.0	Grants, subsidies, and contributions	33	28	20
42.0	Insurance claims and indemnities	309	262	192
44.0	Refunds	91	77	56
99.0	Subtotal direct obligations	1,115,904	1,048,608	887,885
99.0	Reimbursable obligations	145,235	137,000	116,000

# NATIONAL FOREST SYSTEM OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-11060-1-302	1985 actual	1986 est.	1987 est.
	ALLOCATION ACCOUNTS			
	Personnel compensation:			
11.1	Full-time permanent	1,146	982	928
11.3	Other than full-time permanent	43	36	28
11.9	Total personnel compensation	1,189	1,018	956
12.1	Personnel benefits: Civilian	164	140	131
21.0	Travel and transportation of persons	107	63	49
22.0	Transportation of things	24	14	11
23.2	Rental payments to others	94	56	43
24.0	Printing and reproduction	80	47	36
25.0	Other services	353	209	162
26.0	Supplies and materials	150	89	69
31.0	Equipment	86	· 51	39
32.0	Lands and structures	9	5	4
99.0	Subtotal allocation accounts	2,256	1,692	1,500
99.9	Total obligations	1,263,395	1,187,300	1,005,385
	Obligations are distributed as follows: National Forest System Bureau of Land Management Total	1,261,139 2,256 1,263,395	1,185,608 1,692 1,187,300	1,003,885 1,500 1,005,385

# NATIONAL FOREST SYSTEM PERSONNEL SUMMARY

Identification code: 12-11060-1-302	1985 actual	1986 est.	1987 est
Direct:			
Total number of permanent positions Total compensable workyears:	19,553	19,488	16,916
Full-time equivalent employment Full-time equivalent of overtime	24,565	25,049	21,502
and holiday hours	537	548	484
Average ES salary	68,043	68,043	68,043
Average GS grade	9.68	9.68	9.68
Average GS salary	26,087	26,087	26,087
Average salary of ungraded positions	22,953	22,953	22,953
Reimbursable:			
Total number of permanent positions Total compensable workyears:	100	102	89
Full-time equivalent employment Full-time equivalent of overtime	133	136	119
and holiday hours	1,597	1,634	1,429
Average ES salary	68,043	68,043	68,043
Average GS grade	9.64	9.64	9.64
Average GS salary	25,783	25,783	25,783
Average salary of ungraded positions			
Allocation Accounts:			
Total number of permanent positions Total compensable workyears:	43	36	35
Full-time equivalent employment Full-time equivalent of overtime	45	38	36
and holiday hours			
Average ES salary			
Average GS grade	10.52	10.52	10.52
Average GS salary	27,285	27,285	27,285
Average salary of ungraded positions	,		

# NATIONAL FOREST SYSTEM PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-1106-1-1-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
10.00	Total obligations		165,700	
	Financing:			
40.00	Budget authority (appropriation)	<b>-</b>	165,700	
	Relation of obligations to outlays:			
71.00	Obligations incurred, net		165,700	
90.00	Outlays		165,700	
	OBJECT CLASSIFICATION (in thous	ands of dollar	s)	
		1985 actual	1986 est.	1987 est.
	Personnel compensation:			200. 000.
11.1	Full-time permanent		8,286	
11.3	Other than full-time permanent		4,785	
11.5	Other personnel compensation		45,916	
11.8	Special personal services payments		13,540	
11.9	Total personnel compensation		72,527	
	D 3 1 614			
	Personnel benefits:		2 200	
12.1	Civilian		3,206	
13.0	Benefits for former personnel		688	
21.0	Travel and transportation of persons		11,971	
22.0	Transportation of things		2,285	
23.1	Standard level user charges		26 46	
23.2 23.3	Rental payments to others Communications, utilities, and other		46	
	rent		1,755	
24.0	Printing and reproduction		20	
25.0	Other services		48,631	
26.0	Supplies and materials		23,195	
31.0	Equipment		1,263	
32.0	Lands and structures		_6	
42.0	Insurance claims and indemnities		71	
44.0	Refunds		10	
99.9	Total obligations		165,700	
	PERSONNEL SUMMAR	v		
	PERSONNEL SUMMAN	· 1		
		1985 actual	1986 est.	1987 est.
	Direct:			
	Total compensable workyears:			
	Full-time equivalent employment		670	
	Full-time equivalent of overtime			
	and holiday hours		1,538	
	Average ES salary			
	Average GS grade		9.63	
	Average GS salary		25,693	
	Average salary of ungraded positions .		21,432	

# NATIONAL FOREST SYSTEM PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-1106-2-1-302	1985 actual	1986 est.	1987 est
,	Program by activities:			<del></del>
10.00	Total obligations			5,000
	Financing:			
40.0001	Budget authority (appropriation)			5,000
71.00	Relation of obligations to outlays: Obligations incurred, net			5,000
74.40	Obligated balance, end of year			-1,000
90.00	Outlays			4,000
	OBJECT CLASSIFICATION (in thou	sands of dollar 1985 actual	s) 1986 est.	1987 est.
Pe 11.3	ersonnel compensation: Other than full-time permanent			500
11.9	Total personnel compensation		<u>:</u>	500
Pe 12.1	ersonnel benefits: Civilian			300
22.0	Transportation of things			1,622
23.3	Communications, utilities, and other rent			900
24.0	Printing and reproduction			58
25.0	Other services			1,380
26.0	Supplies and materials			240
99.9	Total obligations			5,000



## Construction

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 Base in thous	1987 Estimate ands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Construction of facilities \$	27,862 182	27,284 179	26,111		11,736 129	-15,548 -50	+11,736 +129
Forest road construction \$	228,914 3,711	188,205 3,500	180,112	 	178,485 3,410	-9,720 -90	+178,485 +3,410
Trail construc- tion \$ FTE	7,093 178	7,033 176	6,731		4,976 140	-2,057 -36	+4,976 +140
Total \$ FTE	263,869 4,071	222,522 3,855	212,954		195,197 3,679	-27,325 -176	+195,197 +3,679

#### Appropriation Summary Statement

The Construction appropriation provides for acquiring, restoring, constructing, and improving buildings, utility systems, dams, recreation facilities, roads, bridges, trails, and other physical facilities. Land acquisition for administrative sites may be funded from this appropriation when it is a part of the total project costs.

Minor projects estimated to cost less than \$50,000 may be financed from regular benefiting program funds.

#### Authorities

The Act of June 4, 1897, Organic Administration Act of 1897, as amended (16 U.S.c. 473).

Construction for administration, protection and management. (05-96) 12-1103 302 SAGR HAGR

Such sums as appropriated; no expiration date.

P.L. 81-478, Granger-Thye Act of April 24, 1950 (16 U.S.C. 571c). Section 1.

Erect buildings, lookout towers, and other structures on non-Federal land where a long term right of use is secured. Such sums as needed: no expiration date.

P.L. 88-657, Act of October 13, 1964, National Forest Roads and Trail Systems Act (16 U.S.C. 535). P.L. 94-588, National Forest Management Act of 1976 (16 U.S.C. 472a). P.L. 93-378 Forest and Rangeland Renewable Resources Planning Act, as amended (16 U.S.C. 1601). Section 4 (2).

Timber roads constructed by timber purchasers. (05-96) 12-1103 302 SAGR HAGR
Such sums as appropriated; no expiration date.

- P.L. 89-106, The Act of August 4, 1965 (7 U.S.C. 2250a). Section 1. Erection and leasing of buildings, structures and land from non-Federal sources. Such sums as appropriated; no expiration date.
- P.L. 90-543, National Trails System Act, October 2, 1968, as amended by
   P.L. 98-11 (16 U.S.C. 1241-1251). Sections 7 and 10.
   Land acquisition, exchange, donation. Management and assistance of the National Trails System.
   Such sums as appropriated: no expiration date.
- P.L. 95-307, Forest and Rangeland Renewable Resources Research Act, June 30, 1978, as amended (16 U.S.C. 1643(a)). Section 3. Construction. Such sums as appropriated; no expiration date.
- P.L. 95-619, National Energy Conservation Policy Act (42 U.S.C. 8259). Section 549.

Retrofit of facilities for energy conservation. Such sums as appropriated; expires January 1, 1990.

### **Construction of Facilities**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in t	1987 <u>Base</u> chousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Research construction $\dots$ \$ FTE	1,634	393 2	376 		344 2	+344 +2
Construction for fire, administrative, and other purposes\$ FTE	14,417 67	15,993 70	15,306		6,492 49	+6,492 +49
Recreation construction \$ FTE	11,811 113	10,898 107	10,429	ent en var en	4,900 78	+4,900 +78
Total \$	27,862 182	27,284 179	26,111		11,736 129	+11,736 +129

#### General

This program consists of constructing, replacing, and improving buildings and other facilities to support Forest Research, State and Private Forestry, and National Forest System (NFS) activities. Portable structures, such as trailers and modular units, that become an integral part of real property are included as a cost of the construction of facilities.

#### Research Construction

#### Objective

To build and improve laboratory and other facilities needed to carry out the Forest Service research mission.

#### Program description

Forest Service scientists are responsible for developing technology that improves productivity of the Nation's forests and rangelands.

To accomplish this task, scientists need facilities and equipment that are safe and commensurate with the type of research being performed. Adequate facilities allow greater depth in research investigations, eliminate unsafe working conditions, and permit advantages of consolidation.

Facilities are located to permit Federal scientists to interact with university scientists and to ensure a comprehensive, coordinated approach to problems. Research progress expected to accrue from adequate research facilities will increase productivity in forestry, provide for resource development and use, and conserve and protect the resource base.

Incr	ease
for	1987

	Base (Do	<u>Estimate</u> llars in thousands	Increase
Research construction \$ FTE		344 2	+344 +2

1987

1987

A total of \$344,000 is proposed.

The FY 1987 program will continue to emphasize health and safety. This includes such projects as repair of electrical wiring systems, installation of fire and smoke alarm systems, renovation of sewage and water systems, and elimination of other health and safety hazards.

The proposed research construction projects are shown in Exhibit 1.

Object	class
informa	tion

Salaries and benefits	+61 +22 +162 +99
Total	+344

#### Construction for Fire, Administrative, and Other Purposes (FA&O)

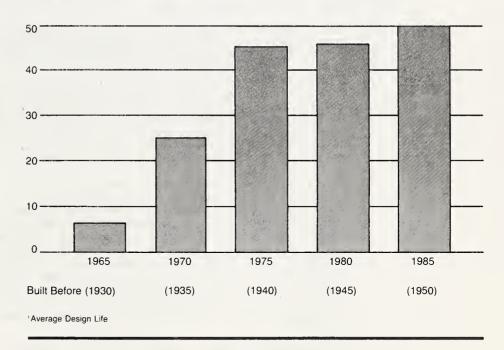
Objective

To replace, construct, and improve offices, employee housing, service and storage buildings, nursery buildings, utility systems, airports and heliports, water, sanitation, electrical systems, and similar general purpose items. To acquire and improve administrative sites and other construction projects (except recreation facilities) in support of National Forest System and State and private forestry programs.

Program description

The FY 1987 program will emphasize facility replacement and rehabilitation. This emphasis is needed because about 46 percent of the 11,200 buildings and utility systems in use by the Forest Service were built before 1940. About 50 percent exceeded their structural and functional design life in 1985, as shown in the following chart, and are no longer cost effective. Since they need extensive maintenance.

#### Percent of FA&O Buildings Exceeding 35 Years¹ Age



Specific areas of construction emphasis will be:

- Health and Safety--provide safe and healthy working conditions and living environments for employees and users of National Forest facilities. This includes meeting drinking water and waste water disposal standards, providing facilities for proper use and storage of hazardous chemicals and flammables, replacing unsafe electrical wiring, and eliminating or reducing other health and safety hazards.

- <u>Planning and Design</u>-carry out advance facilities planning and preliminary design for projects that could be constructed within the next 3 years.

Two distinct planning steps are used to reduce the need to reprogram funds among projects: (1) Preliminary project analysis to evaluate location, investment level, and acquisition options, and to identify the most cost effective, long term combination; (2) early determination of the best project option and scope to ensure that facilities requested are designed and provided on schedule and within budgets.

Emphasis is also placed on facility master planning. This ensures coordination at the Forest level in managing and evaluating existing facilities, eliminating obsolete facilities that are no longer cost-effective, and consolidating functions and needs for more effective operation and control.

- Program Support Facilities--replace and construct facilities to furnish working and living space and to achieve resource output and protection targets. This support includes:
  - 1. Fire management--provide facilities for fire suppression and presuppression activities, such as lookouts, air attack facilities, and fire management centers.
  - Nursery and tree improvement building construction--construct, replace, and enlarge nursery and tree improvement buildings needed to meet tree seedling production levels for the 1980s and 1990s. This includes greenhouses, headhouses, storage buildings, offices, packing sheds, etc., and integral support systems of those buildings (sewer, electrical, and water systems), including underground irrigation systems.
  - 3. Administrative facilities--provide service and storage facilities, offices, employee housing, and related administrative site improvements to meet program needs. Housing construction and replacement will be limited to providing family housing in isolated locations and seasonal housing in areas where recruitment of seasonal employees is hampered by lack of affordable private housing. Family housing will not be constructed in locations where such housing can be rented or purchased by the employee in the private sector at a reasonable cost. Efforts will be continued to replace older facilities where maintenance is uneconomical.
  - 4. Equal opportunity support--provide facilities that will further the equal opportunity goals in the Forest Service's affirmative action plan. Retrofit present facilities where appropriate to provide access by the handicapped and equal facilities for women and men.
  - 5. Energy conservation--retrofit existing facilities to improve their energy efficiency as required by the National Energy Conservation Policy Act, P.L. 95-619.

Increase for 1987		1987 <u>Base</u>	1987 Estimate Increase (Dollars in thousands)
	Fire, administrative, and other construction \$ FTE		6,492 +6,492 49 +49
	A total of \$6,492,000 is proposed.		
	Funding at this level will enable of programs at a modest level and conspriority projects.		
	Unsafe and functionally obsolete factorisideration. Exhibit 2 lists FA& the FY 1987 program.		
Object class information	Salaries and benefits	· · · · · · · · · · · · · · · · · · ·	+57 +46 +290 +2,854
	Total		÷6.492

#### Recreation Construction

#### Objective

To repair and rehabilitate existing recreation facilities to meet health and safety standards, protect soil and water resources, improve economic efficiency, and increase fee receipts. To provide recreation opportunities appropriate to the forest setting.

# Program description

The recreation program emphasis is away from recreation facilities and toward more primitive settings. It is necessary, however, to construct new facilities and reconstruct or rehabilitate existing recreation improvements to meet public demand, provide for the health and safety of forest visitors, maintain basic resources of soil and water quality, preserve past capital investment, convert utility systems to reduce maintenance costs, and qualify certain facilities for user fees.

Few of the proposed projects are new construction which would add to the total capacity of facilities on National Forest System (NFS) lands. Most are to reconstruct and replace existing recreation facilities or to complete recreation facilities begun previously.

Over \$500 million was invested in NFS recreation facilities in the 1960s. Many of these facilities are approaching or have reached the end of their physical life and must be reconstructed or replaced. Most needs are for water and sewer replacement, site restoration, and recreation dam repair.

The Land and Water Conservation Fund Act (16 U.S.C. 4601) established standards which must be met before fees may be charged for recreation facilities. Recreation facility reconstruction and replacement ensures that facilities where fees are charged will continue to meet these standards and thereby remain in the fee system.

Incr	ease
for	1987

	1987 <u>Base</u> (Dol	1987 Estimate lars in thousands	Increase
Recreation construction \$ FTE	:	4,900 78	+4,900 +78

A total of \$4,900,000 is proposed.

Construction of recreation improvements will emphasize rehabilitation of water and sanitation systems. This program is responsive to the priorities identified in the FY 1980 General Accounting Office audit of NFS recreation facilities. Scheduled heavy maintenance and rehabilitation needs continue to be deferred. Deferred maintenance at the end of FY 1985 was \$296 million, compared to \$248 million in FY 1980.

Outlays to bring substandard facilities up to the standards required in the Land and Water Conservation Fund Act will permit charging user fees at many of these sites.

The proposed recreation construction projects are shown in Exhibit 3.

# Object class information

Salaries and benefits	+2,382 +29 +170 +1,438 +881
Total	+4,900

#### FY 1987

### **Project Listing**

#### Research Construction

Health and Safety -- Projects include chemical-flammable storage buildings, smoke detection systems and fire alarms, sprinkler systems, replacement of unsafe electrical wiring, rehabilitation of unsafe water systems, and the elimination of other health and safety hazards.

Station	Location	Project	Costs (Dollars in thousands)
Intermountain	Logan, UT	Build flammable storage building.	\$ 30
Pacific Southwest	Station-wide	Housing improvements; electrical, water, and sewage repairs.	
	Riverside, CA	Install fumehoods.	35
Pacific Northwest	All exp. forests	Bring electrical systems to code and provide handicapped facilities.	
	Station-wide	Bring air filtration systems	
	Starkey exp. forest	to standard. Renovate water, sewage, and power systems.	40
Southern	Rio Piedras, PR Crossett, AR	Bring electrical systems to code.	40
North Central	Houghton, MI Rhinelander, WI Houghton, MI	Construct fire exit. Install smoke detection systems.	35
Rocky Mountain	Flagstaff, AZ	Replace transformer to conform to input voltage.	40
Northeastern	Delaware, OH	Replace contaminated water lines.	40
Southeastern	Olustee, FL	Bring electrical system to co	de.
	Macon, GA Athens, GA Coweeta, NC Triangle Park, NC	Provide ventilation for stora buildings.	ge
	Olustee, FL	Monitor and remove asbestos	
	Macon, GA Athens, GA Triangle Park, NC	hazards. Repair asbestos insulation. Repair pipes and boiler.	
	Santee exp. forest	Repair electrical wiring.	40
Forest Products Laboratory	Madison, WI	Replace portions of laborator roof and insulate.	y 44
			TOTAL \$344

FY 1987

PROJECT LISTING

Construction for Fire, Administrative, and Other Purposes

State	National Forest	Project	Co Facilities (Dollars in	st of Roads
Region 1			(DOTTARS III	chousanus)
	Region-wide	Planning and design.	\$ 117	\$
	Region-wide	Water rehabilitation and development.	80	
MT	Beaverhead	Wisdom District warehouse.	180	
MT	Gallatin	Trailer pads.	110	
MT	Kootenai	Troy District warehouse.	250	
		Total, Region 1	737	0
Region 2				
	Region-wide	Planning and design.	218	
	Region-wide	Facility master plans.	30	
CO	Rio Grande	Del Norte District office.	300	16
		Total, Region 2	548	16
Region 3				
	Region-wide	Planning and design.	66	
	Region-wide	Handicapped access.	65	
AZ	Kaibab	Jacob Lake Phase II.	311	
NM	Carson	Penasco sewer.	55	
		Total, Region 3	497	0
Region 4				
	Region-wide	Planning and design.	74	
	Region-wide	Health and safety projects.	101	
ID	Boise	Lowman administration siteStage	2. 172	
ID	Challis	Indian Creek and Mahoney airfields	. 221	
NV	Toiyabe	Supervisor's office remodeling.	138	
		Total, Region 4	706	0

State Region 5	National Forest	Project	Facilities (Dollars in	Roads thousands)
	Region-wide	Telecommunications.	\$ 30	\$
	Region-wide	Planning and design.	28	
CA	Shasta-Trinity	Supervisor's office colocation design.	50	10
CA	Los Padres	Big Sur work center design.	50	30
CA	Plumas	Quincy Ranger District and Zone Engineering office.	700	200
CA	Tahoe	Louis Rica interagency dispatch office.	260	
		Total, Region 5	1,118	240
Region 6				
	Region-wide	Planning and design.	162	
OR	Umatilla	Ukiah Ranger Station office.	402	6
OR	Willamette	Detroit Ranger Station barracks.	490	
OR	Fremont	Paisley Ranger Station barracks.	134	
		Total, Region 6	1,188	6
Region 8				
	Region-wide	Planning and design.	226	
LA	Kisatchie	Vernon work center.	510	28
		Total, Region 8	736	28
Region 9				
	Region-wide	Planning and design.	42	13
	Region-wide	VST support projects.	55	
MI	Hiawatha	Sault St. Marie office purchase.	265	5
WI	Nicolet	Laona office addition.	30	
IN	Wayne-Hoosier	Tell City office addition.	75	11
WV	Monongahela	Greenbrier officePhase I.	146	37
		Total, Region 9	613	66
Region 10				
	Region-wide	Planning and design.	45	
AK	Tongass	Craig office land purchase and site preparation.	170	
		Total, Region 10	215	0
		Regional total Washington office	\$ 6,358 134	\$ 356 0
		TOTAL	\$ 6,492	356 <u>1</u> /

 $<sup>\</sup>underline{1}/$  This amount is funded from the Forest Road Construction appropriation.

# FY 1987 PROJECT LISTING

## Recreation Use Construction

State 1	National Forest	Project	Co Facilities (Dollars in	ost of Roads thousands)
Region 1				_
All	Region-wide	General campground rehabilitation.	\$ 20	\$
A11	Region-wide	Small projects.	26	
MT	A11	Campground rehabilitation.	94	
MT	Flathead	Big Creek campground rehabilitation.	65	27
MT	Flathead	Talley Lake campground rehabilitation.	125	90
		Total, Region 1	330	117
Region 2				
SD	Black Hills	Cook Lake campground rehabilitatio	n. 161	158
CO	Pike and San Isabel	Jefferson Lake campground rehabilitation.	. 22	158
CO	Arapaho- Roosevelt	Water and sanitation rehabilitatio	n. 277	
CO	Routt	Dumont Lake campground, Fish Creek Falls picnic area rehabilitation.	107	109
		Total, Region 2	567	425
Region 3				
AZ	Prescott	Groom Creek water system.	25	
AZ	Tonto	Water users parking Phase II.	150	260
NM	Carson	Valle Vidal Phase I (McCrystal Creand Shuree Ponds).	ek 46	12
NM	Cibola	Juan Toro group site rehabilitation	n. 180	
		Total, Region 3	401	272

## Exhibit 3 - Continued

State	National Forest	Project	Facilities	Roads
Region 4			(Dollars in	thousands)
A11	Region-wide	Water and sanitation rehabilitation	1. \$ 208	\$
UT	Wasatch-Cache	Mirror Lake sanitation rehabilitation.	250	
ID	Challis	Iron Bog campground rehabilitation.	124	63
		Total, Region 4	582	63
Region 5				
CA	Region-wide	Small Projects and concluding contract administration.	98	
CA	Inyo	Rock Creek, Lake George, and McGee Creek campground rehabilitation.	554	55
CA	Plumas	North Fork campground.	392	<u>75</u>
		Total, Region 5	1,044	130
Region 6				
OR, WA	Region-wide	Small projects.	15	
WA	Mt. Baker	Denny Creek campground rehabilitation.	55	23
OR	Siuslaw	Oregon Dunes NRA IS signing.	147	24
OR	Ochoco	Walton Lake complex reconstruction.	. 77	12
OR	Umpqua	Diamond Lake reconstruction.	355	308
OR	Umpqua	Diamond Lake accèss roads.		195
OR	Deschutes	Water and sewer rehabilitation.	71	9
		Total, Region 6	720	571
Region 8				
GA	Chattahoochee- Oconee	Anna Ruby Falls water and sanitation rehabilitation.	on 294	132
FL	Florida	Alexander and Juniper Springs sanitation rehabilitation.	100	
GA	Chattahoochee- Oconee	Brasstown Bald VIS center rehabilitation.	25	
KY	Daniel Boone	Trailhead parking.		45
AL, VA	Alabama G. Washington	Dam rehabilitation.	128	
TN	Cherokee	Sanitation rehabilitation.	13	
		Total, Region 8	560	177

Exhibit 3 - Continued

State	National Forest	Project	Facilities (Dollars in	Roads thousands)
Region 9			(0011410111	, , , , , , , , , , , , , , , , , , ,
A11	Region-wide	Advance survey and design.	\$ 98	\$ 83
A11	Region-wide	Small projects.	85	
MI	Huron-Manistee	River recreation facilities.	56	
NH	White Mountain	Dolly Copp campground rehabilitation.	75	55
VT	Green Mountain	White Rock NRA and Greendale campground rehabilitation.	52	165
МО	Mark Twain	Eleven Point access construction and toilet rehabilitation.	120	35
		Total, Region 9	486	338
Region 10				
AK	Stikine	Three Lakes picnic shelters and Blind River project.	32	
AK	Stikine	Berg Bay mooring floats.	7	
AK	Chatham	Mendenhall Visitor Center rehabilitation.	150	
AK	Chatham	Starrigavin fee facility.	5	
		Total, Region 10	194	0
		Regional total Washington Office		\$2,093 0
		TOTA	L \$4,900	\$2,093 <u>1</u> /

 $<sup>\</sup>underline{1}/$  This amount is funded from the Forest Road Construction appropriation.

### **Forest Road Construction**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Forest road construction \$ Miles FTE	228,914	188,205	180,112		178,485	+178,485
	1,858	924			808	+808
	3,711	3,500			3,410	+3,410

#### **Objective**

To provide a transportation network at the lowest overall cost of construction, operation, and maintenance. To develop this transportation network in an orderly manner to accommodate the annual resource outputs identified in the budget.

## Program description

Several types of roads financed in a variety of ways, serve the resource management needs of the National Forest System:

#### Types of Roads

- Forest Highways. Forest highways are public roads, maintained by State or local governments, that link the Federal-Aid Highway System and forest development roads. Forest highways serve both forest management needs and the needs of local communities adjacent to forest lands. These are traditionally two-lane roads built to State and Federal standards.

Forest highways are financed through the Federal Highway Act from the Federal Highway Trust Fund and administered by the Federal Highway Administration (FHwA). Priorities for project selection are set by agreement among the States, Forest Service, and FHwA. The financing level remained constant at \$33 million per year from FY 1960 through FY 1982. The Highway Revenue Act of 1982 increased the authorization to \$50 million through FY 1986. Extension and revision of this act is expected in FY 1986.

- Forest Roads. The Forest Service transportation system consists of the  $\overline{\text{following:}}$ 
  - Forest arterial roads serve large land areas and usually connect with public highways or other arterial roads to form a network of primary travel routes. Location and standards for these roads are often determined by the need for travel mobility and efficiency rather than by specific resource needs.
  - Forest collector roads serve smaller land areas and are usually connected to a forest arterial or public highway. These roads collect traffic from forest local roads. Location and standards are determined by long term resource needs and travel efficiency.
  - Forest local roads connect terminal facilities with forest collector roads, forest arterial roads, or public highways.
     Location and standards are usually determined by the specific resource needs the roads will serve.

Funding Programs

Construction of forest roads may be financed under any of the three programs—the purchaser credit program (PCP), the purchaser election program (PEP), or the forest road program (FRP). Usually, only forest collector or forest local roads are constructed under the purchaser credit or purchaser election program.

- Purchaser Credit Program (PCP). Under this program timber sale contracts usually require the purchaser to construct roads needed to remove the timber purchased. There are no appropriations for PCP roads. Instead, the amount of timber sales revenue received by the U.S. Treasury is reduced by an amount equal to the cost of PCP roads.

Construction under the PCP is accounted for outside of the Forest Service budget, but Congress sets a limit each fiscal year.

All costs in support of the PCP, such as survey, design, and construction engineering, are included in Forest Road Program financing (see below). Since funding for the PCP reflects only construction and reconstruction costs, it is directly related to the timber sales program for the current year.

For additional information, see "Timber Purchaser Road Construction (PCP)," later in this section.

- <u>Purchaser Election Program (PEP)</u>. Under this program, small business timber purchasers (except in Alaska) may elect, when the timber sale contract is awarded, to have the Forest Service finance and construct any roads required by the sale, provided the cost of road construction exceeds \$20,000. Funding levels are determined by the volume of timber to be offered in the current year and the projected trend of purchasers electing to have the Forest Service construct roads.

As with the PCP, the PEP funds can be used only for construction and reconstruction; funds for survey, design, and construction engineering come from the forest road program.

For additional information, see the section "Timber Purchaser Roads Constructed by the Forest Service (PEP)" under Permanent Appropriations--Working Funds.

- Forest Road Program (FRP). This program finances multipurpose road systems on or adjacent to National Forests and--because the purchaser credit and purchaser election programs finance construction or reconstruction only--planning, management, and project engineering costs for PCP and PEP as well. Most road construction funds are usually spent on roads needed for access to timber. These roads will also provide access for fishing, hunting, recreation, and fire suppression.

About 1 percent of the FY 1985 funding for FRP was programmed for recreation roads, primarily interior campground roads and short access roads to recreation sites. About 5 percent was budgeted for all-purpose and facility access roads. These projects are built in conjunction with fire, administrative, and other construction (FA&O) projects.

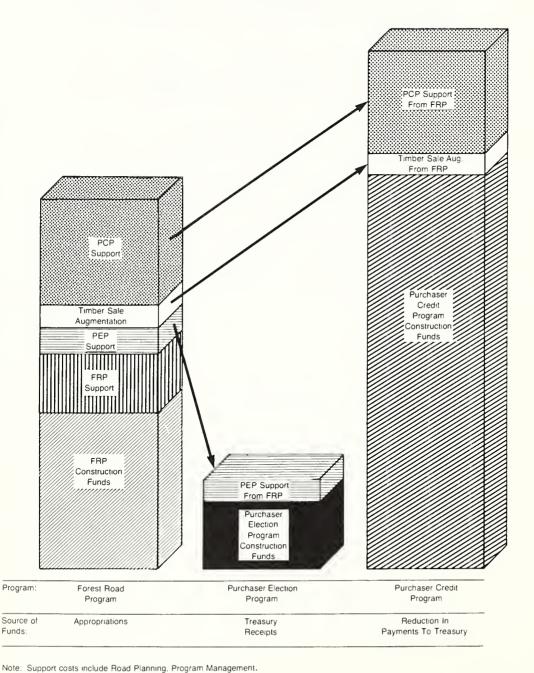
The following are major FRP activities:

- Planning and management—the management costs of the three programs, including non-personnel costs in addition to transportation planning necessary for forest planning. This appropriation also provides specific planning to decide road location to best fit all resource needs, regardless of how the road is funded.
- Preconstruction engineering--the survey, design, and preparation of construction plans for roads to be constructed by all three programs. The work is performed through a combination of inhouse personnel and architectural and engineering contractors.
- Construction engineering--the work needed to control road construction after a contract has been awarded (including construction staking and inspection of work), to ensure contract compliance and correct payment for work performed.
- Construction and reconstruction—the actual cost of constructing and reconstructing roads and bridges. The bridge replacement program is a continuing effort resulting from the National Bridge Safety program, which identifies structures currently not meeting safety requirements for highway roads. Road reconstruction encompasses both improving existing roads to a higher standard and restoring roads to the standard to which they were originally built. Surface rock replacement is financed from reconstruction funds. Rights-of-way acquisition is also included in these costs.
- Augmentation--additional FRP funds added to PCP and PEP, to satisfy the following situations:
  - (1) Where a specific road standard is higher than necessary to remove timber in a timber sale contract. These funds represent the differences in construction costs between the road required for timber removal and the higher standard road necessary for all resource uses.
  - (2) Where the timber value is too low to provide the minimum return to the U.S. Treasury (base rates). Funds may be used to finance a portion of the road costs up to 50 percent of the normal profit margin as determined by Forest Service appraisal. This ensures an even flow of timber in depressed market conditions to communities that depend on NFS timber for economic stability.

The following chart displays how FRP funds are used to support the PCP and the PEP programs.

### Typical Breakout of Forest Road Program

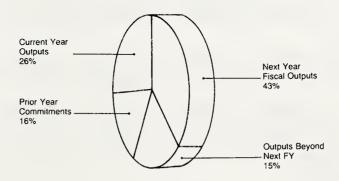
Dollars for Support of FRP, PCP, PEP Programs and Residual Available for Construction



Construction and Preconstruction Engineering.

The funding needs of the Forest Road Program do not fluctuate in direct proportion to resource outputs for the same year. Roads built through the FRP often must be contracted at least one year before the timber is offered for sale.

### Breakdown of FY 1986 FRP Funds by Benefiting Years



The FY 1987 budget request displayed in the following table reflects the timber volume offered in FYs 1985-87, and the reoffer of 2.6 billion board feet (part of the 9.7 BBF returned under the Federal Timber Contract Payment Modification Act of 1984). The distribution of proposed expenditures (preconstruction engineering, construction engineering, etc.) is based on the best available information concerning returned timber sales to the Forest Service, with road construction complete or partially complete.

The table also displays the FRP funding for FYs 1985-87. Support dollars are shown with the benefiting program.

# $\frac{\textbf{Forest Road Program Fund Breakdown}}{(\texttt{Dollars in thousands})} \; \underline{1} / \\$

	1985 Budget		1986	1987		
	President's Budget Request	Allocated 2/ Based on Appropriation	End-of- Year Obligations	President's Budget Request	Allocated Based on Appropriation	President's Budget Request
PCP and PEP roads and bridges <u>3</u> /	\$(320,129)	\$(226,204)	\$(116,990)	\$(213,211)	\$(130,796)	<b>\$(169,</b> 755)
FRP engineering: Planning & mgmt. Preconstruction	. 35,026	37,128	35,877	36,049	32,151	30,603
engineering	47,520	53,547	46,661	54,495	46,125	39,269
Construction engineering	24,480	27,154	21,983	23,854	23,254	20,892
Subtotal	107,026	117,829	104,521	114,398	101,530	90,764
PCP and PEP roads bridges augments FRP appropriation	ed with					
Construction/ reconstruction	8,000	7,221	5,748	7,010	5,745	4,341
Subtotal	8,000	7,221	5,748	7,010	5,745	4,341
Forest roads and constructed by Forest Service						
Planning & mgmt.		15,713	27,275	16,207	22,381	23,618
Preconstruction engineering	15,240	10,475	8,424	10,528	7,835	8,404
Construction engineering Construction Reconstruction	10,160 40,980 25,118	7,332 40,853 30,378	6,430 39,847 36,634	7,018 24,493 15,908	6,687 30,142 13,885	5,849 25,405 20,104
Subtotal	116,858	104,751	118,610	74,154	80,930	83,380
TOTAL	\$ 231,884	\$ 229,801 <u>2</u> /	\$ 228,879	\$ 195,562	\$ 188,205	\$ 178,485

This table reflects the format for the Forest Road Program (FRP) Fund Breakdown as recommended by the General Accounting Office (B-214182) February 14, 1984.

Includes \$228,914,000 appropriated and \$887,000 carried forward from FY 1984.
Dollars shown in parentheses are for PCP and PEP. Construction costs of the purchaser credit and purchaser election programs are not funded by the FRP appropriation. Breakdown between construction and reconstruction is not available.

When FRP Funds Are Used Rather Than PCP

Road construction needs are identified through transportation planning completed as part of the forest plan. These plans specify the location of arterial and collector roads, a ten-year timber harvest program, and the need for local roads based on resource management activities.

As the year of construction approaches for specific projects (such as timber sales or recreation site developments), planning describes the precise location and standards of roads needed for the project. Within the timber sale program, decisions are made 3 to 4 years in advance of the sale whether specific roads will be constructed by the timber purchasers through the PCP or by public works contracts in advance of sale offerings. Construction of roads is financed by the FRP under any of the following conditions:

- The standard of the road is greater than required to remove timber from the proposed sale. Arterial and collector roads often serve multiple resources and require higher standards.
- Total cost of a specific road is too high to be reasonably borne by the timber purchaser in special situations. An example would be access into an area with an insect infestation. The timber management objective is to salvage the timber and quell the infestation. The low value timber will not support the roads required to accomplish these objectives.
- Timber values are low, resulting in insufficient PCP funds within the sale. This condition occurs in parts of the Intermountain West and Appalachia, where community economic stability depends on local mills.
- More than one timber sale will be hauled over a proposed road at the same time. Rather than have one operator become dependent on the other for timely completion of construction, the road is built in advance from FRP funds.

Road Costs Per Mile

Efforts continue to reduce the unit cost of roads. Savings have been realized by reducing road standards (i.e., width, alignment, base, and surfacing) and by reducing contract prices through increased bidding competition.

In most cases, lowering road standards means that traffic must be managed to reduce potential conflicts in road use. For example, recreation use of forest roads may be prohibited during peak use by commercial logging trucks.

Road costs per mile vary widely depending on such factors as standards, amount of rock excavation, method of contracting, and topography. For comparison, following is the range of cost per mile for the three programs used to finance road construction in FY 1985.

#### AVERAGE REGIONAL COSTS PER MILE

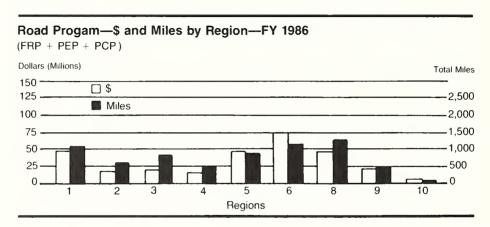
	Range		
	Construction	Reconstruction	
	(Dollars i	n thousands)	
Forest Road Program (FRP)	\$17-133	\$17-67	
Purchaser Credit Program (PCP)	5-76	4-14	
Purchaser Election Program (PEP)	8-50	6-21	

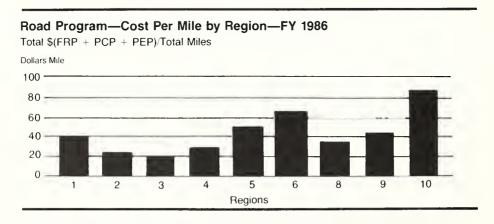
FRP projects are the high-cost roads beyond the scope of the purchaser to construct. These are primarily arterial and collector roads, which often include permanent surfacing and can be two lanes wide. Most bridges are built from this fund and their costs are reflected in the cost per mile.

PCP roads are primarily local and collector roads, with surfacing varying from native material to crushed stone. Estimates for their cost do not include a minimum wage requirement (Davis-Bacon).

PEP costs per mile are higher than PCP for the same roads because PEP unit costs include provision for a minimum wage requirement.

The following charts show the estimated regional costs and outputs for the total road construction program for FY 1986 and the cost per mile by region.





The Forest Service is developing plans and procedures to achieve the five percent reduction in average cost per road mile compared to FY 1985 as directed in the FY 1986 Appropriations Bill. Actual FY 1985 and 1986 data will be displayed in the Report of the Forest Service-Fiscal Year 1986.

## Three-year Summary of Road Construction Program $\underline{1}/$ (Dollars in thousands)

	FY 1985		FY 1986		FY 1987	
	\$	Miles	\$	Miles	7	Miles
Forest Road Program (FRP) <u>2</u> / (Actual obligation)	228,914 (228,879)	1,858	188,205	924	178,485	808
Purchaser Credit Program (PCP) <u>3</u> / (Actual obligation)	192,301 (107,887)	6,184	5/ 107,885	6,758	154,321	6,037
Purchaser Election Program (PEP) 4/ (Actual obligation)	33,903 (9,103)	• •	22,911		15,434	
TOTAL (Actual obligation)	455,118 (345,869)	8,042	319,001	7,682	348,240	6,845

<sup>1/</sup> Since FRP funds are also used to provide engineering support to the PEP and PCP programs, cost per mile comparisons of the three programs or three years are not valid.

Projects are counted as outputs in the fiscal year the timber

sale contract is awarded.

4/ PEP miles are included in PCP.

<sup>3/</sup> Projects are counted as outputs in the year the bid for the timber sale contract is awarded.

<sup>5/</sup> Latest estimate of actual needs. This appropriation limitation is based on the legislative authority of P.L. 97-100 rather than through appropriation language. No new limitation authority was required as sufficient prior year limitation balances were available for use in FY 1986.

Increase for 1987			1987 <u>Base</u> (Do	1987 Estimate llars in thousands)	Increase
	Forest road	4		170 405	±170 <b>/</b> 05

FTF

A total of \$178,485,000 is proposed.

This funding level will provide for construction and reconstruction of 808 miles of roads.

+3,410

3,410

In addition, these funds will be used to support the management, planning, and preconstruction and construction engineering for the PCP and PEP. Outputs for these programs in FY 1986 are estimated to be 6,037 miles of construction and reconstruction. About 50 percent of the road work to be accomplished through FRP, PCP, and PEP is reconstruction.

This funding level is commensurate with the FY 1987 10 BBF timber offer, which includes 2.6 BBF resulting from the Federal Timber Contract Payment Modification Act (Public Law 98-478). Both the support for the PCP and PEP and the 808 miles to be constructed or reconstructed are of primary importance in sustaining future timber offer volume of 10 BBF.

Object class information	Salaries and benefits Travel
· · · · · · · · · · · · · · · · · · ·	Transportation of things
	Printing and reproduction

Travel	+2,396
Transportation of things	+961
Rent, communications, and utilities	+5,917
Printing and reproduction	+471
Supplies, materials, and equipment	+6,507
Land and structures	+33,606
Other contractual services	+28,684
Total	+178,485

#### **Timber Purchaser Road Construction (PCP)**

#### **Objective**

To construct timber sale roads through timber operators.

## Program Description

The Forest Service road construction program includes construction and reconstruction performed by the timber operators through timber sale contract requirements. The timber operators earn timber credits, thereby reducing the amount they must pay for the timber.

#### Increase for 1987

	Base (D	ollars in thousands)	Increase
Timber purchaser road construction (PCP)\$		154,321	+154,321

1987

1987

A total of \$154,321,000 is proposed.

The \$154,321,000 program level is necessary to support the 10 BBF timber offer volume, which includes 2.6 BBF to be reoffered, as a result of the Federal Timber Contract Payment Modification Act.

#### Timber Purchaser Roads Constructed by the Forest Service (PEP)

#### Objective

To construct timber sale roads, through competitive bidding, for small business purchasers who elect to have the roads constructed by the Forest Service.

## Program description

The purchaser election program (PEP) is a part of the financing for the total Forest Service annual road program. For a road to qualify, construction costs for roads exceeding \$20,000 must be included in the timber sale contract and the purchaser must be classified as a small business operator. PEP is available to all locations in the National Forest System except Alaska.

For additional information, see the section "Timber Purchaser Roads Constructed by the Forest Service" under Permanent Appropriations---Working Funds.

#### **Trail Construction**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 <u>Base</u> thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Trail construction \$	7,093	7,033	6,731		4,976	+4,976
Miles	721	838			502	+502
FTE	178	176			140	+140

#### Objective

To increase the opportunities for trail-related recreation and provide access to the National Forest System for administration and management.

## Program description

Trails are vital to increasing the supply of cost effective recreational opportunities by offering the public access to the National Forest System with relatively small investment.

The priority for trail construction funds is reconstruction of trails that have become substandard as a result of age, heavy use, or lack of maintenance.

Reconstruction often includes such work as replacing trail bridges, developing trailhead facilities to accommodate modern vehicles, and redesigning existing trails for new uses (such as handicapped trails). The costs of these facilities can substantially increase construction unit costs because they do not generate miles of output. They are critical, however, to recreation trail use. See the "Trail Maintenance" section in the National Forest System appropriation for additional discussion.

Increase for 1987		1987 <u>Base</u> (Do	1987 <u>Estimate</u> ollars in thousands)	Increase
	Trail construction \$		4,976	+4,976
	FTE		140	+140

A total of \$4,976,000 is proposed.

The proposed level of funding provides for priority construction and reconstruction of 502 miles of trails as necessary for increased recreation use, resource damage prevention, increased costs due to the addition of 163 new wilderness areas, and volunteer assistance under provisions of the National Trails System Act.

Object class information	Salaries and benefits	+4,103 +27 +11 +66 +77 +374 +318
	Total	+4,976

CONSTRUCTION

PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-1103-0-1-302	1985 actual	1986 est.	1987 est
CERTAIN CONTRACTOR CON	Program by activities:	Aldred Aldred Aldred Aldred	- CM - 7/	- A. M
	Direct program:			
	<ol> <li>Construction of facilities</li> </ol>	33,124	29,090	24,177
	<ol><li>Road and trail construction</li></ol>	235,352	206,653	171,806
	<ol><li>Pollution abatement</li></ol>	421	369	295
	4. Land acquisition	8	5	4
	5. Mt. St. Helens timber	185	160	118
	salvage Total direct program	269,090	236,277	196,400
	Reimbursable program	1,712	2,160	1,895
	tratimati dan 15 program concession			
10.00	Total obligations	270,802	238,437	198,295
	Financing:			
	Offsetting collections from:			
11.00	Federal funds	-55	-50	-45
14.00	Non-federal sources	-1,657	-2,110	-1,850
17.00	Recovery of prior year obligations	-1,394		
21.40	Unobligated balance available, start	240 152	10.026	E 001
24.40	of year	-249,153	-19,036	-5,281
24.40	of year	19,036	5,281	4,078
25.00	Unobligated balance lapsing	74,215		
39.00	Budget authority	111,794	222,522	195,197
	Budget authority:			
40.0001	Appropriation	111,794	223,865	195,197
40.0002	Reduction pursuant to P.L. 99-190		-1,343	
43.0001	Appropriation (adjusted)	111,794	222,522	195,197
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	269,090	236,277	196,400
72.40	Obligated balance, start of year	138,762	133,235	129,393
74.40	Obligated balance, end of year	-133,235	-129,393	-117,028
78.00	Adjustments in unexpired accounts	-1,394		
90.00	Outlays	273,223	240,119	208,765
wie sousannaar ste- bew	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested:	,		
	Budget authority	111,794	222,522	195,197
	Outlays	273,223	240,119	208,765
	OutlaysReduction pursuant to P.L. 99-177:	,-	,	, , , , ,
	Budget authority	• • • • •	-9,568	
	Outlays	• • • • •	-5,665	-3,243
	Total:			
		111 704	212 054	105 107
	Budget authority Outlays	111,794 273,223	212,954 234,454	195,197 205,522

CONSTRUCTION

OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-1103-0-1-302	1985 actual	1986 est.	1987 est.
	Direct obligations: Personnel compensation:			· · · · · · · · · · · · · · · · · · ·
11.1	Full-time permanent	92,051	87,153	83,213
11.3	Other than full-time permanent	9,714	9,200	8,774
11.5	Other personnel compensation	1,552	1,469	1,402
11.8	Special personnel service payments	132	128	125
11.9	Total personnel compensation	103,449	97,950	93,514
12.1	Personnel benefits: Civilian	14,425	13,658	13,039
13.0	Benefits for former personnel	2,144	2,030	1,938
21.0	Travel and transportation of persons	3,865	3,272	2,329
22.0	Transportation of things	1,517	1,284	914
23.1	Standard level user charges	3,341	3,591	3,011
23.2	Rental payments to others	2,294	1,942	1,382
23.3	Communications, utilities, and miscella- neous charges	3,685	3,120	2,220
24.0	Printing and reproduction	738	625	445
25.0	Other services	51,973	42,591	30,485
26.0	Supplies and materials	6,982	5,911	4,207
31.0	Equipment	4,405	3,729	2,654
32.0	Lands and structures	66,098	55,961	39,825
41.0	Grants, subsidies, and contributions	1	1	1
12.0	Insurance claims and indemnities	567	480	342
14.0	Refunds	156	132	94
99.0	Subtotal direct obligations	265,640	236,277	196,400
99.0	Reimbursable obligations	1,712	2,160	1,895

CONSTRUCTION

OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-1103-0-1-302	1985 actual	1986 est.	1987 est.
	ALLOCATION TO FEDERAL HIGHWAY ADMINISTRATION			
	Personnel compensation:			
11.1	Full-time permanent	55		
11.3	Other than full-time permanent	15		
11.5	Other personnel compensation	31		
11.9	Total personnel compensation	101		
12.1	Personnel benefits: Civilian	14		
13.0	Benefits for former personnel	. 1		
21.0	Travel and transportation of persons	91		
22.0	Transportation of things	36		
23.2	Rental payments to others	54		
23.3	Communications, utilities, and miscella- neous charges	86		- <u>-</u> -
24.0	Printing and reproduction	17		
25.0	Other services	1,218		
26.0	Supplies and materials	164		
31.0	Equipment	103		
32.0	Lands and structures	1,552		
14.0	Refunds	13		
9.0	Subtotal, allocated accounts	3,450		
9.9	Total obligations	270,802	238,437	198,295

CONSTRUCTION
PERSONNEL SUMMARY

Identification code: 12-1103-0-1-302	1985 actual	1986 est.	1987 est
Direct:			
Total number of full-time			
permanent positions	3,581	3,315	3,171
Total compensable workyears:			-
Full-time equivalent employment	4,025	3,811	3,638
Full-time equivalent of overtime			
and holiday hours	50	48	46
Average ES salary	68,043	68,043	68,043
Average GS grade	9.86	9.86	9.86
Average GS salary	27,396	27,396	27,396
Average salary of ungraded positions	23,096	23,096	23,096
Reimbursable:			
Total number of full-time			
permanent positions	14	13	12
Total compensable workyears:	• '	10	
Full-time equivalent employment	46	44	41
Full-time equivalent of overtime	· -		
and holiday hours	3	2	1
Average ES salary	68,043	68,043	68,043
Average GS grade	9.47	9.47	9.47
Average GS salary	24,562	24,562	24,562
Average salary of ungraded positions			
Allocation Accounts:			
Total number of full-time			
permanent positions	2		
Total compensable workyears:	_		
Full-time equivalent employment	3		
Full-time equivalent of overtime	•		
and holiday hours	1		
Average ES salary			
Average GS grade	9.88		
Average GS salary	27,500		
Average salary of ungraded positions			





### **Land Acquisition**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 Base in thous	1987 Estimate sands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Land and Water Conservation Fund							
(L&WCF)\$	50,535	28,130	26,920		3,206	-24,924	+3,206
Acres acquired	46,477	45,727				-45,727	
FTE	79	77			70	<b>-</b> 7	+70

#### Appropriation Summary Statement

The Land and Water Conservation Fund Act of September 3, 1964 (78 Stat. 897, as amended; 16 U.S.C. 4601-4 to 4601-11) provides funding for the acquisition of recreation lands and interests. The acquisitions are made under authorities of various acts and provide for high priority outdoor recreation opportunities within the National Forest System.

#### Authorities

- P.L. 61-435, Weeks Act, March 1, 1911, as amended by P.L. 94-588 (16 U.S.C. 516, 521b). Sections 1 and 2.

  Land acquisition for watershed protection and timber production. (05-96) 12-1103 302 SAGR HAGR
- P.L. 88-577, Wilderness Act, September 3, 1964. Sections 5 and 6. Land acquisition, exchange, donation. Such sums as appropriated; no expiration date.
- P.L. 90-542, Wild and Scenic Rivers Act, October 2, 1968. Sections 6 and 16.Land acquisition, exchange, donation.Such sums as appropriated; no expiration date.
- P.L. 90-543, National Trails System Act, October 2, 1968, as amended by
  P.L. 98-11 (16 U.S.C. 1241-1251). Sections 7 and 10.
  Land acquisition, exchange, donation. Management and assistance of the National Trails System.
- P.L. 93-205, Endangered Species Act, December 28, 1973. Sections 2 and 3.
  Protection of threatened and endangered species.
- P.L. 93-622, Eastern Wilderness Act, January 3, 1975. Sections 6 and 9. Land acquisition, exchange, donation. Such sums as appropriated; no expiration date.
- P.L. 95-442, Act of October 10, 1978 (7 U.S.C. 2269). Donations of land or interests in land.

Such sums as appropriated; no expiration date.

P.L. 96-586, Lake Tahoe Basin Act, December 23, 1980. Sections 2 and 3.

Land acquisition.

Such sums as appropriated; no expiration date.
(05-96) 12-5004-302 SENR HIIA

Additional authorities are provided in each of the acts establishing National Recreation Areas and Wildernesses, and in other specific laws.

#### Land & Water Conservation Fund

#### Objective 0

To acquire lands, waters, and related interests within the National Forest System for recreation, wilderness, wildlife habitat management, endangered species protection, and other important public outdoor recreation purposes.

## Program description

Since the program began in 1965, nearly 1.16 million acres needed for outdoor recreation within the National Forest System have been acquired for approximately \$529 million, or about \$456 per acre.

Over the past 10 years, approximately 500,000 acres have been acquired at a cost of \$391.9 million, for an average of \$784 per acre.

Cash equalization payments may be made from benefiting funds.

#### Increase for 1987

Land and Water	1987 <u>Base</u> (Dolla	1987 Estimate 's in thousands)	Increase
Conservation Fund \$	~ -	3,206	+3,206
FTE		70	+70

A total of \$3,206,000 is proposed. This level of funding will provide for the closing of existing land acquisition cases in which commitments have been made.

No new acquisitions are proposed for FY 1987.

Emphasis will continue to be placed on land exchange as an alternative to land purchase, by offering non-Federal landowners the opportunity to pursue exchanges.

## Object class information

Salaries and benefits	+2,362
Travel	+4
Supplies, materials, and equipment	+11
Land and structures	+797
Other contractual services	+32
Total	+3,206

LAND ACQUISITION
PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-5004-0-2-303	1985 actual	1986 est.	1987 est.	
	Program by activities:				
00.91	Total direct program	31,306	38,000	36,000	
01.01	Reimbursable program	534			
10.00	Total obligations	31,840	38,000	36,000	
	Financing:				
	Offsetting collections from:				
14.00	Non-Federal sources	-535			
21.40	Unobligated balance available, start				
24 40	of year	-41,277	-60,507	-50,637 17,843	
24.40	Unobligated balance available, end of year	60,507	50,637		
39.00	Budget authority	50,535	28,130	3,206	
40.0001	Budget authority: Appropriation	50,535	28,300	3,206	
40.0002	Reduction pursuant to P.L. 99-190		-170		
43.0001	Appropriation (adjusted)	50,535	28,130	3,206	
	Relation of obligations to outlays:	<del></del>		<del></del>	
71.00	Obligations incurred, net	31,306	38,000	36,000	
72.40	Obligated balance, start of year	17,131	6,149	3,622	
74.40	Obligated balance, end of year	-6,149	-3,622	-7,832	
90.00	Outlays excluding pay raise				
	supplemental	42,288	40,527	31,790	
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol				
	Enacted/requested:				
	Budget authority	50,535	28,130	3,206	
	OutlaysReduction pursuant to P.L. 99–177:	42,288	40,527	31,790	
	Budget authority		-1,210		
	Outlays	• • • • •	-484	-605	
	Total:				
	Budget authority	50,535	26,920	3,206	
	Outlays	42,288	40,043	31,185	

## LAND ACQUISITION OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-5004-0-2-303	1985 actual	1986 est.	1987 est.
11.1	Direct obligations: Personnel compensation: Full-time permanent	2,213	2,151	1,964
11.3	Other than full-time permanent	114	114	99
11.5	Other personnel compensation	20	20	18
11.9	Total personnel compensation	2,347	2,285	2,081
11.5	Personnel benefits:	-,	2,200	2,001
12.1	Civilian	328	319	291
13.0	Benefits for former personnel	9	9	8
21.0	Travel and transportation of persons	127	157	149
22.0	Transportation of things	27	33	31
23.1	Standard level user charges	66	71	59
23.2	Rental payments to others	104	129	123
23.3	Communications, utilities, and miscella- neous charges	64	79	75
24.0	Printing and reproduction	14	17	16
25.0	Other services	1,121	1,386	1,317
26.0	Supplies and materials	60	74	70
31.0	Equipment	36	45	43
32.0	Lands and structures	26,991	33,381	31,723
44.0	Refunds	12	15	14
99.0	Subtotal direct obligations	31,306	38,000	36,000
99.0	Reimbursable obligations	534		
99.9	Total obligations	31,840	38,000	36,000
	PERSONNEL SUMMARY	,		
		1985 actual	1986 est.	1987 est.
	Direct: Total number of full-time			
	permanent positions Total compensable workyears:	75	72	65
	Full-time equivalent employment Full-time equivalent of overtime	79	77	70
	and holiday hours	1 68,043	1 68,043	1 68,043
	Average GS grade	10.98 31,168	10.98 31,168	10.98 31,168
	Average salary of ungraded positions			





# Acquisition of Lands for National Forests, Special Acts

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 Base in thou	1987 Estimate sands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Acquisition of lands for National Forests.							
special acts \$	706	777	744	777	966	+189	+189
Acres acquired FTE	368	700		700	595	-105	-105

#### Appropriation Summary Statement

The Congress has enacted several special laws that authorize appropriation from receipts of specified National Forests to purchase lands to minimize erosion and flood damage.

These critical watershed lands need soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within the National Forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective.

To ensure full program effectiveness, the Federal Government acquires the intermingled private lands. Results are reflected in improved watershed conditions.

The governments of the designated counties in Utah, Nevada, and southern California recognize the benefits from these acquisition programs and are interested in having these critical lands protected through public ownership.

Damages to the lands are occurring which can only result in future expenditures of public funds for rehabilitation and public safety that greatly exceed current costs for land acquisition.

#### **Authorities**

P.L. 76-589, 76-591, and 78-310 (54 Stat. 299 and 297 and 58 Stat. 227).

Land acquisition for watershed protection and timber production. (05-96) 12-5208 302 SENP HIIA

Toiyabe-\$10,000 annually.

Other such sums as available from the receipts of each National Forest or as appropriated; no expiration date.

#### Objective

To acquire lands within critical watersheds needing soil stabilization and restoration of vegetation, to prevent serious erosion and resulting damage by floods. Funds may also be used for cash equalization in land exchanges involving acquisition of these lands.

### Program description

Lands are acquired from willing sellers and are managed to stabilize the soils and restore vegetative cover to prevent serious erosion and damaging floods. In the past 3 years, 848 acres have been acquired at a cost of \$1,338,100.

Incr	ease
for	1987

	1987 <u>Base</u> (Doll	1987 Estimate ars in thousand	Increase s)
Acquisition of lands for National Forests,			
special acts\$	777	966	+189
FTE	1	1	

An increase of \$189,000 is proposed from the 1987 base. This funding level will allow acquisition of approximately 595 acres of land, 105 acres fewer than the 700 acres in FY 1986.

The increased per acre cost from \$1,110 per acre in FY 1986 to \$1,624 per acre in FY 1987 reflects the increased value of land in southern California.

		1985 Actual	1986 _Appn	1987 Estimate
	Cache National Forest, Utah, Act of 5/11/38, as amended	\$ 2,000	\$ 20,000	\$ 20,000
	Uinta-Wasatch National Forests, Utah, Act of 8/26/35, as amended	49,000	30,000	30,000
	Toiyabe National Forest, Nevada, Act of 6/25/38, as amended	10,000	10,000	10,000
	Angeles National Forest, California, Act of 6/11/40	235,000	262,000	260,000
	Cleveland National Forest, California, Act of 6/11/40	393,000	160,000	200,000
	San Bernardino and Cleveland National Forests, California, Act of 6/15/38, as amended	17,000	295,000	446,000
	Total	\$706,000	\$777,000	\$966,000
Object class	Land and structures	+189 +189		
	Total			

# Acquisition of Lands to Complete Land Exchanges

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction 1	1987 / Base in thous	1987 Estimate ands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Acquisition of lands to complete land	40	20	10	20	005	.075	.075
exchanges \$	42	20	19	20	895	+875	+875
Acres acquired		30		30	552	+522	+522
FTF							

<sup>1/</sup> The \$1,000 reduction is in planned obligations, since the budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

#### Appropriation Summary Statement

The Act of December 4, 1967 (16 U.S.C. 484a), as amended, stipulates that deposits made by public school districts, public school authorities, or State or local governments for cash equalization of certain land exchanges can be appropriated to acquire lands for National Forest System (NFS) purposes in the same State.

#### Authorities

P.L. 90-171, Act of December 4, 1967, Land Exchanges in the National Forests, as amended (16 U.S.C. 484a).

Acquisition of lands to complete land exchange with public schools and State and local governments.

(06-96) 12-5216 302 SAGR HAGR Such sums as appropriated; no expiration date.

#### Objective

To acquire lands suitable for NFS purposes, in order to replace NFS lands acquired by public school districts, public school authorities, or State or local governments.

## Program description

When it is in the public interest, public schools and State or local governments can acquire NFS lands by paying cash, which is deposited into a special U.S. Treasury fund specifically for acquiring replacement lands. When appropriated, these funds may be used within the same State to acquire replacement lands suitable for NFS purposes.

This program is cyclical, and the availability of funds depends on deposits into the fund by individual school districts or State or local governments when they acquire a tract of NFS land.

Increase for 1987		1987 <u>Base</u> (Dollan	1987 Estimate rs in thousands	Increase
	Acquisition of lands to complete land exchanges\$ Acres acquired FTE	20 30 	895 552 	+875 +522 
	A total of \$895,000 is proposed acquisition of 552 acres, 522 at The money has been deposited in districts or authorities, or Stacquisition of replacement land	acres more than t n a special fund tate or local gov	the 30 acres in by public schoo	FY 1986.
Object class	Land and structures	• • • • • • • • • • • • • • • • • • • •	+875	
	Total		+875	

## **Miscellaneous Trust Funds**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 Base in thou	1987 Estimate sands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base			
Miscellaneous trust funds \$ FTE	35 	89 	85 	89 	90 	+1 	+1 			
Appropriation Summary Statement	current oper appropriatio	ifts and bequests received for research, but not needed for urrent operations, are invested in public debt securities. This ppropriation makes available to the Forest Service all such deposits o invest and reinvest in public debt securities.								
Authority	June 30, 197 Accepta operati (0	P.L. 95-307, Forest and Rangeland Renewable Resources Research Act, June 30, 1978 (16 U.S.C. 1643). Section 4(b).  Acceptance of gifts and proceeds thereof not needed for current operations to be invested in public debt securities.  (05-98) 128034 SAGR HAGR Such sums as appropriated; no expiration date.								
Objective	To receive gifts and bequests and to appropriate them for forest and rangeland research.									
Program description	Funds are used to present the annual heritage workshop, designed to acquaint academic instructors with the latest technology in wood utilization and engineering. Balances not needed for recurrent operations are invested in interest-bearing securities.									
Increase for 1987				1987 <u>Base</u> (	19 <u>Esti</u> Dollars in	mate	Increase			
	Miscellaneou	s trust fu	nds \$ FTE	89 	-	0	+1			
	The proposed FY 1984 leve		of \$1,000 w	ill rest	ore this pr	ogram to it	:s			
Object class	Other contra	ctual serv	rices	• • • • • • •	• •	+1				
01 224 01 011	T-4-1					. 1				

+1

## Range Betterment Fund

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollar	1987 1/ Base s in thous	1987 Estimate sands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Range betterment							
fund \$	3,966	3,798	3,635	3,798	3,800	+2	+2
FTE	64	62		62	62		

The \$163,000 reduction is in planned obligations, since the budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

#### Appropriation Summary Statement

A range betterment program on National Forest lands within the 16 western States is financed by appropriations from grazing fee receipts.

Range betterment activities involve installing both structural and nonstructural range improvements. These include seeding and reseeding, fence construction, weed control, water development, and fish and associated wildlife habitat enhancement.

#### Authorities

P.L. 94-579, Federal Land Policy and Management Act of 1976; (43 U.S.C. 1751), as amended by P.L. 95-514, Public Rangelands Improvement Act of 1978 (43 U.S.C. 1751(b)(1)).

Range management use of one-half of grazing receipts from 16 western States.

(05-96) 12-5207 302 SENR HIIA

One-half of grazing receipts per annum; no expiration date.

#### Objective

To arrest range deterioration and improve range forage conditions with resulting benefits to livestock production, watershed protection, and wildlife. To make cost effective investments in range improvements on areas of highest priority on National Forest lands in the 16 western States. To the extent feasible, demonstrate sound improvement practices for use on associated private and other State and Federal lands by rehabilitating, protecting, and improving soil and vegetation cover on National Forest lands.

### Program description

These funds, when appropriated, are used for on-the-ground range rehabilitation, protection, and improvements. One-half of the funds are used on the National Forest in which the funds originated, and the other half for range betterment within that Region.

Planning and administration funds necessary to carry out the intent of the legislation are included in the "Range Management" section under National Forest System or other benefiting functions. Outputs and accomplishments, a combination of both Range Management and Range Betterment, are shown as a combined total under Range Management.

Increase for 1987			1987 Estimate ars in thousands	Increase 3)				
	Range betterment fund \$ FTE	3,798 62	3,800 62	+2				
	An increase of \$2,000 is proposed from the 1987 base. This increase is based on 50 percent of the estimated FY 1986 grazing receipts of National Forests in the 16 western States.							
	The estimate of receipts was ba animal month for the 1986 grazi used for 1985).							
Object class	Other contractual services		+2					
iniormation	Total		+2					

# Operation and Maintenance of Recreation Facilities

	1985 <u>Actual</u>	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars	1987 <u>Base</u> in thou	1987 Estimate sands)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Operation and maintenance of recreation facilities \$					52,000	+52,000	+52,000
FTE					1,307	+1,307	+1,307

Appropriation Summary Statement A program of maintaining recreation areas and facilities on NFS lands is proposed.

Authority

Proposed legislation and amendment to P.L. 88-578, Land and Water Conservation Fund Act of 1965 (16 U.S.C. 1643). Section 4b.

Such sums as are appropriated from receipts by Congress.

Objective

To manage and protect the natural resources and facilities that will accommodate the public's need for outdoor recreation, emphasizing opportunities to know and experience nature. To maintain facilities necessary to meet the rising demands for natural resource oriented recreation.

Program description

This proposed program will provide for the return of user fee receipts for operation and maintenance of recreation areas and facilities. Recreationists who enjoy National Forest System lands will receive direct benefit from the fees collected. Land and Water Conservation Fund receipts from other sources are necessary in FY 1987 to provide time for proposed legislation to be passed which will allow sufficient funds to accrue.

Receipts will be used with recreation management funds in providing 99.0 million PAOT-days (persons-at-one-time) of managed facility use.

### **Youth Conservation Corps**

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in	1987 Base thousands	1987 Estimate	Inc.(+) or Dec.(-) from Base
Youth Conservation Corps \$	(3,234)	(3,380)	(3,234)	(3,380)		(-3,380)

#### Objective

To accomplish needed conservation work on public lands and waters; to provide gainful employment for 15- to 18-year-old males and females from all social, economic, ethnic, and racial classifications; and to develop an environmental understanding and appreciation during their participation in the program.

## Program description

The Act of August 13, 1970 (84 Stat. 794) (16 U.S.C. 1701-06), as amended, authorizes the Youth Conservation Corps (YCC) program on Federal lands.

During FY 1985, not less than \$3.2 million was earmarked from available National Forest System (NFS) funds for high priority projects to be carried out by the YCC.

The Forest Service operated a \$3.7 million YCC program with NFS funds (as authorized by the 1985 Appropriation Act) serving 2,293 young people. In FY 1986, funding for the YCC program is from any funds available to the Forest Service.

Additional information on accomplishments for YCC is in the section on "Human Resource Programs."

A YCC program is not proposed for FY 1987.

## **Working Capital Fund**

Appropriation Summary Statement The Working Capital Fund was established by the Department of Agriculture Organic Act of August 3, 1956, as amended by the Act of October 23, 1962 (16 U.S.C. 579b). It is a self-sustaining revolving fund which provides services to the National Forest System, Experiment Stations, and other Federal agencies, and, as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.

Authorities

Department of Agriculture Organic Act of 1956 (70 Stat.; 16 U.S.C. 579b).

**Objective** 

To provide orderly and efficient financial management for the service and supply operations of the Forest Service.

Program description

The forestry-related supply and support services provided by the Working Capital Fund in FY 1985 included the following:

- 1. Equipment--a service that owns, operates, maintains, replaces, and repairs common-use motor driven and similar equipment.

  Administrative units rent this equipment at rates that recover the cost of operation, repair, maintenance, management, and depreciation. The rates also include an increment that provides additional cash which, when added to depreciation earnings and the residual value of equipment, provides sufficient funds to replace the equipment.
- 2. Aircraft--a service that operates, maintains, and repairs Agency-owned aircraft used in fire surveillance, suppression, and other Forest Service programs. The aircraft are rented at rates that recover the cost of depreciation, operation, maintenance, and repair. Aircraft replacement costs are financed from appropriated funds, the Forest Service Working Capital Fund, or a combination of both.
  - 3. Supply—a service that provides the following:
- Photo reproduction laboratories which store, reproduce, and supply photographs of National Forest System lands and activities at cost.
- Sign shops which manufacture and supply special signs for use in regulating traffic and as information to the public and other users of the National Forest System.
- Subsistence facilities which prepare and serve meals for Forest Service crews working in areas where adequate public restaurant facilities are not available.
- 4. Tree Nurseries--a service that operates forest tree nurseries and cold storage facilities for storage of tree and seed stock and a seed extractory. The seed is procured, cleaned, bagged, and stored in refrigerated facilities, then sold to the National Forest System at cost.

	1985 <u>Actual</u>	1986 <u>Estimate</u> (Dollar <del>s in tho</del> usands)	1987 Estimate
Equipment	\$66,968	\$69,542	\$71,726
Aircraft	3,526	3,477	3,663
Supply	2,967	1,813	2,029
Nursery	14,228	15,584	15,193
Total	\$87,689	\$90,416	\$92,611

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund.

Estimated expenditures by the Working Capital Fund are based on plans submitted by Forest Service field offices.

OTHER APPROPRIATIONS

PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-9911-0-1-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
	1. Acquisition of lands for Winema			
	National Forest, Oregon	7	469	
	<ol><li>Youth conservation corps</li></ol>	41		
	<ol><li>Forest management protection and</li></ol>			
	utilization	2		
10.00	Total obligations	50	469	
	Financing:			
	Offsetting collections from:			
4.00	Non-Federal sources			
17.00	Recovery of prior year obligations	-3,945		
21.40	Unobligated balance available, start			
	of year	-469	-469	
24.40	Unobligated balance available, end	4.50		
SE 00	of year	469		
25.00	Unobligated balance lapsing	3,895		
39.00	Budget authority			
	Relation of obligations to outlays:			
1.00	Obligations incurred, net	50	469	
2.40	Obligated balance, start of year	4,786	479	
4.10	Receivables in excess of obligations,	4,700	7/3	
	end of year			
4.40	Obligated balance, end of year	-479		
78.00	Adjustment in unexpired accounts	-3,945		
90.00	Outlays	412	948	
lictrib	ution of outlays by account:			
	ema National Forest	7	948	
	sition of lands for:	,	5.13	
	est management, protection and utilization	388		
	th conservation corps	17		
	OD IFOT OF SCALE ACCUSATION AND AND AND AND AND AND AND AND AND AN			
	OBJECT CLASSIFICATION (in thousa	ands of dollars	5)	

# ACQUISITION OF LANDS FOR NATIONAL FORESTS SPECIAL ACTS

#### PROGRAM AND FINANCING (in thousands of dollars)

Identification code: 12-5208-0-2-302	1985 actual	1986 est.	1987 est.
Program by activities:			
1. Cache National Forest, Utah	. 2	20	20
2. Wasatch National Forest, Utah		30	30
3. Toiyabe National Forest, Nev		10	10
4. San Bernardino and Cleveland		10	10
National Forests, Calif	. 17	295	446
5. Angeles National Forest, Calif		262	260
6. Cleveland National Forest, Calif		160	200
, , , , , , , , , , , , , , , , , , , ,			
10.00 Total obligations	. 706	777	966
40.0001 Budget authority (appropriation)			
(special fund)	. 706	782	966
40.0002 Reduction pursuant to P.L. 98-473		-5	
43.0001 Appropriation (adjusted)	. 706	777	966
Relation of obligations to outlays:			
71.00 Obligations incurred, net		777	966
72.40 Obligated balance, start of year		379	380
74.40 Obligated balance, end of year	379	-380	-399
90.00 Outlays	. 544	776	947
SUMMARY OF BUDGET AUTHORI (in thousands of d			
Enacted/requested:			
Budget authority	706	777	966
Outlays	544	776	947
Reduction pursuant to P.L. 99-177:			
Budget authority	• • • • •	-33	
Outlays	• • • •	-30	-3
Total:			
Budget authority Outlays	706 544	744 746	966 944

# ACQUISITION OF LANDS FOR NATIONAL FORESTS SPECIAL ACTS

#### OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-5208-0-2-302	1985 actual	1986 est.	1987 est.
1.1	Direct obligations: Personnel compensation: Full-time permanent	32	32	32
2.1	Personnel benefits: Civilian	4	4	4
21.0	Travel and transportation of persons	1	1	1
22.0	Transportation of things	1	1	1
25.0	Other contractual services	114	126	158
26.0	Supplies and materials	1	1	1
32.0	Lands and structures	553	612	769
9.9	Total obligations	706	777	966
	PERSONNEL SUMMAR	·		
		1985 actual	1986 est.	1987 est
	Direct: Total number of full-time permanent positions Total compensable workyears:	1	1	1
	Full-time equivalent employment Average ES salary	1	1	1
	Average GS grade	11.68 31,526	11.68 31,526	11.68 31,526
	Average salary of ungraded positions	31,520	31,520	31,320

## ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-5216-0-2-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
	Acquisition of land:			
	Arizona	22	20	
	California			865
	Colorado			10
10.00	Total obligations (object class 32.0)	22	20	875
	Financing:			
17.00 21.40	Recovery of prior year obligations Unobligated balance available,	-11		~ ~ ~
	start of year	-901	-932	-932
24.40	Unobligated balance available,			
	end of year	932	932	952
40.0001	Appropriation	42	20	895
71 00	Relation of obligations to outlays:			075
71.00	Obligations incurred, net	22	20	875
72.40 74.40	Obligated balance, start of year	18 -23	23 -23	23 -3
78.00	Obligated balance, end of year Adjustment in expired accounts	-23 -11	-23	-3
70.00	·	-11	W 07 m	
90.00	Outlays	6	20	895
	OBJECT CLASSIFICATION (in thousa	nds of dollar	s)	
32.0	Lands and structures	22	20	875
	SUMMARY OF BUDGET AUTHORITY (in thousands of doll	· · · · · · · · · · · · · · · · · · ·		
	Enacted/requested:			
	Budget authority	42	20	895
		6	20	895
	Outlays			
	Reduction pursuant to P.L. 99-177: Budget authority	••••	-1	• • • • •
	Reduction pursuant to P.L. 99-177:  Budget authority Outlays	••••	-1	• • • • •
	Reduction pursuant to P.L. 99-177: Budget authority	42	····. -1 20	895

RANGE BETTERMENT FUND
PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-5207-0-2-302	1985 actual	1986 est.	1987 est.
10.00	Total obligations	3,888	3,871	3,700
	Financing:			
17.00 21.40	Recovery of prior year obligations Unobligated balance available, start	-94		
24.40	of year	-351	-523	-450
24.40	of year	523	450	550
40.0001	Appropriation	3,966	3,798	3,800
71.00 72.40 74.40 78.00	Relation of obligations to outlays: Obligations incurred, net Obligated balance, start of year Obligated balance, end of year Adjustment in expired accounts	3,888 1,144 -1,018 -94	3,871 1,018 -1,057	3,700 1,057 -957
90.00	Outlays	3,920	3,832	3,800
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested: Budget authority Outlays Reduction pursuant to P.L. 99-177:	3,966 3,920	3,798 3,832	3,800 3,800
	Budget authority Outlays	• • • • •	-131	-32
	Total: Budget authority	3,966 3,920	3,798 3,701	3,800 3,768

RANGE BETTERMENT FUND
OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-5207-0-2-302	1985 actual	1986 est.	1987 est
11.1	Personnel compensation: Full-time permanent	585	561	561
11.3	Other than full-time permanent	546	532	532
11.5	Other personnel compensation	68	65	65
1.8	Special personnel service payments	22	22	22
1.9	Total personnel compensation	1,221	1,180	1,180
2.1	Personnel benefits: Civilian	130	126	126
3.0	Benefits for former personnel	43	41	41
21.0	Travel and transportation of persons	38	38	35
22.0	Transportation of things	32	32	30
23.3	Communications, utilities, and miscella- neous charges	27	27	25
24.0	Printing and reproduction	3	3	3
25.0	Other services	639	647	603
26.0	Supplies and materials	1,432	1,450	1,352
31.0	Equipment	69	70	65
2.0	Lands and structures	253	256	239
2.0	Insurance claims and indemnities	1	1	1
9.9	Total obligations	3,888	3,871	3,700
	PERSONNEL SUMMAR	Y		
		1985 actual	1986 est.	1987 est.
1	Direct: Total number of full-time			
	permanent positionsTotal compensable workyears:	25	24	24
	Full-time equivalent employment Full-time equivalent of overtime	64	62	62
	and holiday hours	3	3	3
	Average GS grade	8.80	8.80	8.80
	Average salary of ungraded positions	24,336 20,848	24,336 20,848	24,336 20,848

# OPERATION AND MAINTENANCE OF RECREATION FACILITIES PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-5072-2-2-302	1985 actual	1986 est.	1987 est.
10.00	Total obligations		~ -	46,800
	Financing:			
24.40	Unobligated balance available, end of year			5,200
40.0001	Appropriation			52,000
71.00 74.40	Relation of obligations to outlays: Obligations incurred, net Obligated balance, end of year		 	46,800 -7,748
90.00	Outlays			39,052
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested: Budget authority Outlays Proposed for later transmittal under proposed legislation:	••••	••••	••••
	Budget authority	• • • • •	• • • • •	52,000 39,052
	Total: Budget authority Outlays	••••	• • • • •	52,000 39,052

## OPERATION AND MAINTENANCE OF RECREATION FACILITIES OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-5072-2-2-302	1985 actual	1986 est.	1987 est.
	Direct obligations: Personnel compensation:			
11.1	Full-time permanent			29,772
11.3	Other than full-time permanent			3,219
11.5	Other personnel compensation			504
11.9	Total personnel compensation			33,495
12.1	Personnel benefits: Civilian			4,671
13.0	Benefits for former personnel			693
21.0	Travel and transportation of persons			216
22.0	Transportation of things			85
23.2	Rental payments to others			128
23.3	Communications, utilities, and miscella- neous charges			206
24.0	Printing and reproduction			41
25.0	Other services			2,901
26.0	Supplies and materials			390
31.0	Equipment			246
32.0	Lands and structures			3,687
42.0	Insurance claims and indemnities			32
44.0	Refunds			9
99.9	Total obligations			46,800
	PERSONNEL SUMMAR	χΥ		
		1985 actual	1986 est.	1987 est.
	Direct: Total number of full-time permanent positions			1,130
	Total compensable workyears: Full-time equivalent employment Full-time equivalent of overtime			1,307
	and holiday hours			16
	Average ES salary			
	Average GS salary			27,364

WORKING CAPITAL FUND
PROGRAM AND FINANCING (in thousands of dollars)

	ntification code: 12-4605-0-4-302	1985 actual	1986 est.	1987 est.		
Program by activities:						
	Direct program:					
	Forestry related supply and support: Operating costs, funded Capital investment, funded	56,007 25,057	67,578 27,752	67,787 27,504		
0.00	Total obligations	81,064	95,330	95,291		
Fi	inancing:					
	Offsetting collections from:					
1.00	Federal funds	-90,585	-89,761	-91,597		
4.00	Non-Federal sources	-906	-3,958	-4,032		
21.98	Unobligated balance available, start					
	of year: Fund balance	-60,944	-71,371	-69,760		
24.98	Unobligated balance available, end					
	of year: Fund balance	<u>71,371</u>	69,760	70,098		
39.00	Budget authority					
	Relation of obligations to outlays:					
71.00	Obligations incurred, net	-10,426	1,611	-338		
2.98	Obligated balance, start of year:	00 747	25 005	27 516		
4 00	Fund balance	28,747	35,905	37,516		
4.98	Obligated balance, end of year:	2E 00E	27 516	27 170		
	Fund balance	-35,905	-37,516	-37,178		
00.00	Outlays	-17,584				

WORKING CAPITAL FUND
OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-4605-0-4-302	1985 actual	1986 est.	1987 est.
11.1	Personnel compensation: Full-time permanent	16,937	16,833	16,029
11.3	Other than full-time permanent	5,783	5,748	5,463
11.5	Other personnel compensation	940	953	889
11.8	Special personnel service payments	6	6	6
11.9	Total personnel compensation	23,666	23,540	22,387
12.1	Personnel benefits: Civilian	2,901	2,886	2,745
13.0	Benefits for former personnel	879	874	832
21.0	Travel and transportation of persons $\dots$	386	490 .	500
22.0	Transportation of things	314	399	407
23.1	Standard level user charges	477	512	430
23.2	Rental payments to other	570	724	739
23.3	Communications, utilities, and miscella- neous charges	1,179	1,498	1,529
24.0	Printing and reproduction	17	22	22
25.0	Other services	11,645	14,796	15,098
26.0	Supplies and materials	18,765	23,840	24,327
31.0	Equipment	20,159	25,615	26,139
32.0	Lands and structures	90	114	116
41.0	Grants, subsidies, and contribution	1	1	1
42.0	Insurance claims and indemnities	4	5	5
44.0	Refunds	11	14	14
99.9	Total obligations	81,064	95,330	95,291

Note: Personnel totals are included with personnel totals of all other Forest Service programs.



Forest Service

# Permanent Appropriations— Working Funds

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction (Dollars in		1987 Estimate s)	Inc.(+) or Dec.(-) from 1986	Inc.(+) or Dec.(-) from Base
Brush disposal Receipts \$ Planned oblig. \$ Thousand acres FTE	53,734 41,822 359.8 897	64,000 48,026 308 1,015	45,960 	48,026 308 1,015	64,000 47,835 317 1,008	 -191 +9 -7	 -191 +9 -7
Licensee programs: Smokey Bear and Woodsy Owl Receipts \$ Planned oblig. \$	74 100	100 100	 96	 100	100 100	 	 
FTE Restoration of forest lands & improvements	1	1		1	1		
Receipts \$ Planned oblig. \$ FTE	172 100 3	100 100 3	96 	100	100 100 3	 	 
Roads & trails for States, National Forest Fund Receipts \$	(58,018)	(55,491)			(86,815)		
Timber purchaser roads constructed by the Forest Service							
Receipts \$ Planned oblig. \$ FTE	33,898 33,903 13	22,911 22,911 12	21,926	 	15,434 15,434 12	-7,477 -7,477 	+15,434 +12
Timber salvage sales Receipts \$ Planned oblig. \$ FTE	15,232 16,055 530	25,000 24,000 720	22,968 	24,000 720	27,000 20,713 671	+2,000 -3,287 -49	-3,287 -49
Tongass timber supply fund Receipts \$ Planned oblig. \$ FTE	49,970 49,973 484	51,802 51,802 519	49,573 	51,802 519	45,815 45,815 459	-5,987 -5,987 -60	 -5,987 -60
Operation and maintenance of Fore Service quarters	st						
Receipts \$ Planned oblig. \$ FTE	4,854 4,854 63	5,100 5,100 63	4,881 	5,100 63	5,400 5,400 65	+300 +300 +2	+300 +2
TOTAL Receipts \$ Planned oblig. \$ FTE	157,934 146,807 1,991	169,013 152,039 2,333	145,500 	129,128 2,321	157,849 135,397 2,219	-11,164 -16,642 -114	+6,269 -102

<sup>1/</sup> Reductions are in planned obligations, since budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

### Appropriation Summary Statement

This section includes the permanent appropriations which are separate Forest Service activities or which are combined with other Forest Service activities to accomplish common tasks.

#### Authorities

P.L. 62-430, Act of March 4, 1913 (16 U.S.C. 501) (Department of Agriculture Appropriations Act).

Forest road and trail improvements--10 percent financed from

National Forest receipts.

(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation; no expiration date.

P.L. 64-190, Act of August 11, 1916 (Department of Agriculture Appropriations Act), as amended (16 U.S.C. 490). Section 6.

Disposal of brush and other debris due to timber sales in National Forests.

(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation; no expiration date.

P.L. 82-327, Act of May 23, 1952, as amended (16 U.S.C. 580p-2). Section 3.

Forest fire prevention campaign (Smokey Bear).
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.

P.L. 85-464, Act of June 20, 1958 (16 U.S.C. 579c). Section 7.
Restoration, improvements, and protection of Forest Service lands.
(05-96) 12-9922 302 SAGR HAGR
Permanent appropriation; no expiration date.

P.L. 93-318, Act of June 22, 1974, as amended (16 U.S.C. 580p-3). Sections 1-6.

Woodsy owl anti-pollution campaign. (05-96) 12-9922 302 SAGR HAGR

Permanent appropriation, no expiration date.

P.L. 94-588, National Forest Management Act of 1976, October 22, 1976 (16 U.S.C. 472a(h) and (i)). Section 14(h) and (i).

Timber salvage fund for harvesting insect infested, dead, and damaged trees. Section 472a(h).

Timber purchaser roads constructed by the Forest Service. Section 472a(i).

(05-96) 12-9922 302 SAGR HAG

Permanent appropriation; no expiration date.

P.L. 96-487, Alaska National Interest Lands Conservation Act, December 2, 1980 (16 U.S.C. 539d). Section 705a.

Tongass timber supply fund to maintain timber at specified level on Tongass National Forest.

(05-96) 12-9922 302 SAGR HAGR

Permanent appropriation; no expiration date.

P.L. 98-473, Title I, Continuing Appropriations Act of 1985, Interior and Related Agency Appropriations, Title III (98 Stat. 1874; 5 U.S.C. 5911 note). Section 320.

Fund for the operation and maintenance of Forest Service Quarters. (05-96) 12-9922 - 302 SENR HIIA

Permanent appropriation; no expiration date.

## **Brush Disposal**

#### **Objective**

To dispose of brush and other debris resulting from cutting operations on timber sale areas in order to protect and maintain National Forest System resources.

# Program description

Timber cutting usually increases the fire hazard because of the dry fuel that accumulates as logging slash. Slash may also impair reforestation, contribute to the buildup of insect populations, damage stream channels, degrade aesthetics of the forest environment, and limit recreational access.

Brush disposal may be accomplished by crushing, chipping, or burning. A combination of these methods is often used.

When disposal of brush and other debris from timber sale operations is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris. When economical and expedient, the work is performed by the timber purchaser. The work can also be carried out by the Federal Government using deposits collected from the purchaser to cover costs of the work. This activity is authorized under Section 6 of the Act of April 24, 1950 (16 U.S.C. 490).

1007

1007

### Decrease for 1987

	Base (Dol	Estimate lars in thousa	Decrease nds)
Brush disposal\$	48,026	47,835	-191
	1.015	1.008	-7

A decrease of \$191,000 is proposed from the 1987 base.

This level of funding will provide for the treatment of 317,000 acres of National Forest lands where timber harvest has been completed and where the resulting fuels have been determined ready for treatment.

Treatment costs for brush disposal work are expected to decrease from \$156 per acre in FY 1986 to \$151 per acre in FY 1987. This decrease is due to the selection of timber sale areas that are generally less difficult to treat and to the mix of selected projects among Regions. The cost of treatment has generally stabilized after a series of changes due to higher air quality requirements, fuel treatment standards, and site preparation needs. The Forest Service is continuing its efforts to reduce unit costs of brush disposal work.

Salaries and benefits	-167 -11 -13
Total	1.01

## Licensee Programs—Smokey Bear and Woodsy Owl

**Objective** 

To prevent forest fires and promote environmental quality.

Program description

Fees for the use of the Smokey Bear and Woodsy Owl characters by private enterprises are collected under regulations formulated by the Secretary of Agriculture. They are available for the following:

- Smokey Bear--to further the nationwide forest fire prevention campaign (16 U.S.C. 580p).

- Woodsy Owl--to promote wise use of the environment, and programs that foster maintenance and improvement of environmental quality (16 U.S.C. 580p).

No change from 1987

## **Restoration of Forest Lands and Improvements**

Objective

To complete all necessary work to return National Forest System lands to optimum production in a timely manner.

Program description

This program includes recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers who fail to complete performance or improvement, protection, or rehabilitation work required under the permit or timber sale contract.

The recovered funds are used to cover the cost to the Government of completing the work on National Forest System lands. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (Act of June 20, 1958, 16 U.S.C. 579c).

No change from 1987

### Roads and Trails for States—National Forest Fund

**Objective** 

To offset appropriations for road and trail improvements.

Program description

Under the Act of March 4, 1913 (16 U.S.C. 501), 10 percent of National Forest receipts are made available to build and maintain roads and trails within the National Forests in the States where the receipts were collected. This permanent appropriation has been transferred to the General Fund since 1982 to offset appropriations. The amounts shown in the table at the beginning of this section are actual for 1985 and 1986, and estimated (based on 1986 receipts) for 1987.

## Timber Purchaser Roads Constructed by the Forest Service (PEP)

### Objective

To build timber sale roads on the National Forests for small business purchasers who elect to have the roads built by the Forest Service.

# Program description

This program, referred to as the Purchaser Election Program (PEP), is part of the financing of the annual total Forest Service road program.

For a road to qualify, construction costs exceeding \$20,000 must be included in the timber sale contract, and the purchaser must be classified as a small business operator. The PEP program is available to all locations in the National Forest System except the State of Alaska. Authority cited at 16 U.S.C. 472a(i) makes funds available from timber receipts.

Increases or decreases in mileage constructed through the PEP are offset by decreases or increases in the Purchaser Credit Program (PCP). Costs differ between Purchaser Credit and Purchaser Election funds only by the increase from including Davis-Bacon minimum wage rate requirements in competitively bid construction contracts funded by PEP.

### Increase for 1987

1987	1987	
Base	Estimate	Increase
(Dol	lars in thousa	nds)

+15,434

+12

Timber purchaser roads
constructed by the
Forest Service .....\$ -- 15,434
FTE -- 12

A total of \$15,434,000 is proposed.

The \$15,434,000 funding level is based on recent experience with this fund and the decrease in road construction as a result of the Federal Timber Contract Payment Modification Act. The mileage associated with PEP is estimated to be 660 miles, but the actual mileage will be unknown until after the sales are awarded.

The Forest Service has no control on the demand for PEP funds. Timber purchasers who qualify as small businesses can elect to require the Forest Service construct or reconstruct qualifying roads.

+366
+18
+7
+75
+169
+14,427
+372
+15.434

## **Timber Salvage Sales**

### Objective

To salvage insect-infested, dead, damaged, or down timber, and to remove associated trees for stand improvement.

# Program description

This program is part of the timber sales program.

A separate permanent appropriation for timber salvage was established for this program as a result of the National Forest Management Act of 1976, 16 U.S.C. 472a(h). Part of the receipts from timber salvage sales are deposited in this account and used to prepare and administer future salvage sales.

Separate appropriations of \$3 million each in FY 1977 and FY 1979 were used as "seed money" to accelerate the establishment of timber salvage sales as a self-sustaining permanent appropriation.

Some of the sales prepared with these funds are set aside for preferential award to small business firms with 25 or fewer employees.

	FY 1985 Actual (Bi	FY 1986 Estimate Ilion board	FY 1987 Estimate feet)
Salvage volume from sale admin- istration and management Timber salvage sale volume	.5 1.0	.9	1.1
Total salvage volume	1.5	1.8	1.9

Decrease for 1987

	1987 <u>Base</u> (Do1	1987 <u>Estimate</u> lars in thousar	Decrease
Timber salvage sales\$	24,000	20,713	-3,287

671

-49

A decrease of \$3,287,000 is proposed from the FY 1987 base.

FTF 720

This level of funding provides for advance sales preparation, necessary timber support, and transportation system design work necessary to prepare and offer 810 million board feet of salvage volume. This is about 90 million board feet less than the FY 1986 program of 900 million board feet.

These funds also provide for the full administration of salvage sales made in previous years. Because of past severe storms in the Pacific Northwest, the continued spread of the mountain pine beetle in the Rocky Mountains and the southern pine beetle, the number of timber salvage sales has been increasing as much as the amount of collections from previous sales will allow. The timber salvage sales are designed for rapid removal of the defective materials within one to two operating seasons.

Object class information	Salaries and benefits Travel Transportation of things Rent, communications, and utilities Supplies, materials, and equipment Other contractual services	-1,215 -163 -98 -314 -419 -1,078
	Total	-3,287

## **Tongass Timber Supply Fund**

To

#### Objective

To maintain the timber supply from the Tongass National Forest at a rate of 4.5 billion board feet per decade as provided by 16 U.S.C. 539d.

### Program description

Funding for this special account is derived from receipts collected by the Secretary of the Interior and the Secretary of Agriculture. Funds provide for timber sale preparation and administration, including protective measures for wildlife, fisheries, and soil and water resources.

The levels of timber management planning, silvicultural examination, and investments in timber stand improvements, reforestation, roads, facilities, and research are commensurate with sustaining the timber supply from the Tongass National Forest at 4.5 billion board feet per decade (see Exhibit 1 at end of this section).

### Decrease for 1987

	1987	1987		
	Base	Estimate	Decrease	
	(Do1	lars in thousa	nds)	
Tongass Timber Supply				
Fund\$	51,802	45,815	-5,987	

519

459

A decrease of \$5,987,000 is proposed from the FY 1987 base.

FTE

Funding at this level will provide for the preparation and offer of 424 million board feet of timber sales. This continues timber sales at the current level, with less emphasis on facility construction and advance road construction.

Road construction and reconstruction will total \$11,436,000, and include 33 miles of road for access to future timber sale areas. Multiple use coordination will continue to be emphasized.

Forestry research will emphasize the essential information needs on attainable growth rates, yields, and the applicability of partial cutting and other harvesting practices on sensitive areas without adverse impacts on other resources.

Since successful natural regeneration can be obtained on almost all areas harvested, reforestation in 1987 will be limited to monitoring previous years' plantings, continuing the tree improvement program, and maintaining facilities.

Timber stand improvement work will be done on 6,300 acres in FY 1987, compared to 7,800 acres in FY 1986.

## Facilities construction in FY 1987 will be carried out as follows:

		Project	Amount (Dollars in thousands)
	Forest-wide	Planning survey and design of out-year projects	\$ 464
	Stikine	Wrangell warehouse	295
	Stikine	Wrangell barracks	354
	Stikine	Wrangell vehicle storage area and fence	110
		TOTAL	\$1,223
information  Travel  Transportation of things  Rent, communications, and util Supplies, materials, and equipp Lands and structures  Other contractual services		enefits	-2,258 -411 -91 -349 -210 -1,715 -953
	Total		-5,987

Exhibit 1

## Tongass Timber Supply Fund

	1985	1986 (Dollars in thousands)	1987
Timber sales preparation $\underline{1}/\ldots$ \$ MMBF	10,459 (450)	8,919 (424)	9,885 (424)
Timber sales administration\$	3,241	3,206	3,530
Timber support \$	2,537	2,846	3,376
Reforestation \$ Acres	565 363	182 140	138
Timber stand improvement \$ Acres	2,359 8,269	3,802 7,800	3,423 6,300
Facilities construction. \$	2,516	1,921	1,223
Road construction \$ Miles	14,718 45.0	16,236 80	11,436 <u>4</u> /
Engineering support \$	11,534	12,615	10,729
Research \$	2,044	2,075	2,075
TOTAL, Tongass timber supply fund	49,973	51,802	45,815
Purchaser road construction 2/\$ Miles	(15,200) 47.9	(18,328) 121	(30,268) 193
Ref/TSI (K-V) <u>3</u> / \$	401 836 50,374	435 870 52,237	569 1,003 46,384

- 1/ Includes timber management planning and silvicultural examinations.
- 2/ Timber purchaser road construction is an off-budget line item that is not reflected in totals. Figures in parentheses indicate dollar limitations set for purchaser construction, which are reflected in the Construction appropriation limitation.
- 3/ Not included in the Tongass Timber Supply Fund appropriation, but under K-V Trust Funds.
- 4/ Includes \$4.3 million for augmenting timber purchaser road construction to timber stands of a quality not anticipated in the Forest plan. Mileage is included under Purchaser Road Construction.

## **Operation and Maintenance of Quarters**

### Objective

To operate and maintain employee quarters.

Operation and maintenance of Forest Service quarters .....

# Program description

Under authority of Public Law 98-473 (5 U.S.C. 5911 note), a permaner fund was established for deposit of Forest Service employees payroll deductions for quarters rental. Funds are used to operate and maintemployee quarters on the unit from which collected. These funds are addition to the maintenance of facilities funds in the NFS appropriation.

The cost of maintenance and management of water, waste-water disposa systems, and similar facilities in common with administrative use is prorated among contributing activities.

Incr	ease
for	1987

1987 <u>Base</u> (Dol1	1987 Estimate ars in thousa	Increase nds)
5 100	5 400	+300

+2

An increase of \$300,000 is proposed from the 1987 base.

FTF

This level is based on estimated receipts from employee quarters rental deductions for FY 1987.

Salaries and benefits	+52
Travel	+4
Rent, communications, and utilities	+27
Supplies, materials, and equipment	+140
Other contractual services	+77
Total	+300

# Permanent Appropriations— Payment Funds

	1985 Actual	1986 Approp. Enacted to Date	1986 Estimate with DCA Reduction 1/ (DOITars in th	1987 <u>Base</u> nousands		Inc.(+) or Dec.(-) 2/ from 1986	Inc.(+) or Dec.(-) from Base
Payment to Minnesota \$	716	716		716	716		
Payments to counties, National							
Grasslands\$	10,047	14,661		14,661	5,600	-9,061	-9,061
Payments to States, National Forest							
Fund\$	224,937	212,241		212,241	78,574	-133,667	-133,667
Total payments \$	235,700	227,618	217,830 <u>1</u> /	227,618	84,890	-142,728	-142,728

- Reductions are in planned obligations, since budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177. Due to uncertainty as to how payments already made will be reduced, the final distribution of the total payments is unknown at this time.
- 2/ The payments to States and counties in FY 1987 reflect the assumption that proposed legislation will change the program from receipts sharing to a net receipt basis.

## Authorities

P.L. 60-136, Act of May 23, 1908, Department of Agriculture Appropriations Act, as amended (16 U.S.C. 500).

Payments to States, National Forest Fund.

(05-96) 12-9921 852 SENR HAGR SAGR HIIA
Twenty-five percent of monies received; no expiration date.

P.L. 71-539, Shipstead-Nolan Act of July 10, 1930, as amended by P.L. 95-495 (16 U.S.C. 577g). Section 5.

Payment to Minnesota for land purchase in Superior National Forest.

(05-96) 12-9921 852 SAGR HAGR Such sums from National Forest Fund equal to three-fourths of 1 percent of the fair appraised value of the lands; no expiration date.

P.L. 75-210, Bankhead-Jones Farm Tenant Act, July 22, 1937, as amended, (7 U.S.C. 1012). Section 33.

Payments to counties where National Grasslands are located.
(05-96) 12-9921 852 SAGR HAGR
Such sums from receipts equal to 25 percent of net revenues; no expiration date.

## **Payments to Minnesota**

Objective

To provide a special annual payment to the State of Minnesota for lands in the Boundary Waters Canoe Area as specified by law.

Program description

At the close of each fiscal year, the State of Minnesota is paid 0.75 percent of the appraised value of certain Superior National Forest lands in the counties of Cook, Lake, and St. Louis, for distribution to these counties (16 U.S.C. 577g).

## **Payments to Counties, National Grasslands**

Objective

To provide an annual payment to the counties in which the National Grasslands and Land Utilization Projects are located, for funding schools and roads.

Program description

Of the net revenues received for the use of National Grasslands, 25 percent is paid to the counties in which such lands are situated, for school and road purposes (7 U.S.C. 1012).

Under current legislation, an estimated \$10,954,000 would be paid to the counties in FY 1987. We are proposing legislation that will decrease this payment to \$5,600,000, a savings of \$5,354,000. Receipts from grazing and recreation will continue to be shared as they are under current legislation. Receipts from minerals, timber, land uses, and power will be shared on a net receipts basis.

## Payments to States, National Forest Fund

**Objective** 

To provide an annual payment to the States from National Forest receipts to be used for schools and roads.

Program description

With few exceptions, 25 percent of all monies received from the National Forests during the fiscal year is paid to the States in which the forests are located, to benefit public schools and public roads in the county or counties with the National Forests (16 U.S.C. 500).

The National Forest Management Act of 1976 (P.L. 94-588, October 22, 1976) expanded the term "monies received" to include all collections from sale area improvement activities plus "all amounts earned or allowed any purchaser of National Forest timber and other forest products within such State . . . for construction of roads." The amount of this appropriation varies in direct proportion to National Forest receipts, sale area improvement collections, and timber purchaser construction during the previous fiscal year.

The Wood Residue Utilization Act of 1980 (Public Law 96-554) which expires September 30, 1986, further expanded the term "monies received" to include any wood residue credit applied under the Act, as well as sales of wood residues (less the sum of any residue credit applied, plus any costs the Forest Service incurred in processing and storing such residues).

Under current legislation, an estimated \$298,036,000 would be paid to the States in FY 1987. We are proposing legislation that will decrease this payment to \$78,574,000, a savings of \$219,462,000. Receipts from grazing and recreation will continue to be shared as they are under current legislation. Receipts from timber, land uses, power, and minerals will be shared on a net receipts basis. Purchaser credit earned and allowed and Knutson-Vandenberg deposits will not be shared with the States.

# FOREST SERVICE PERMANENT APPROPRIATIONS PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-9922-0-2-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
	Direct program:			
	1. Expenses, brush disposal	31,428	40,417	46,012
	2. Licensee programs, Forest Service.	33	39	46
	<ol><li>Restoration of forest lands</li></ol>			
	and improvements	138	169	202
	4. Timber purchaser roads constructed			
	by Forest Service	8,485	10,985	15,434
	5. Timber salvage sales	14,976	19,292	23,061
	6. Tongass timber supply fund	45,840	59,098	70,645
	Total direct program	100,900	130,000 15	155,400 13
	Reimbursable program		13	13
0.00	Total obligations	100,900	130,015	155,413
	Financing:			
	Offsetting collections from:			
1.00	Federal funds		-10	-9
4.00	Non-Federal sources		-5	_4
21.40	Unobligated balance available,			
	start of year	-173,211	-225,391	-242,330
24.40	Unobligated balance available,			
	end of year	225,391	242,330	216,927
50.00	Budget authority (appropriation)			
	(permanent, indefinite, special	152 000	146 020	120 007
	funds)	153,080	146,939	129,997
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	100,900	130,000	155,400
72.40	Obligated balance, start of year	38,212	36,196	15,829
74.40	Obligated balance, end of year	-36,196	-15,825	-36,036
90.00	Outlays	102,916	150,371	135,189
				-
Distr	ribution of budget authority by account:			
Exp	penses, brush disposal	53,734	48,026	47,835
	censee programs, Forest Service	74	100	100
	storation of forest lands and	170	100	100
Tin	nprovementsnprovementsnprovementsnprovementsnp	172	100	100
	prest Service	33,898	22,911	15,434
Tir	mber salvage sales	15,232	24,000	20,713
Tor	ngass timber supply fund	49,970	51,802	45,815
	3	,.,.	,	,,,,,
	Distribution of outlays by account:			
Ex	penses, brush disposal	31,961	48,722	47,858
	censee programs, Forest Service	43	100	100
	storation of forest lands and	115	100	100
	mprovements	115	100	100
	mber purchaser roads constructed by	12 100	26 000	10 010
r(	orest Service mber salvage sales	12,198	26,998	18,215
	ngass timber supply fund	14,337 44,262	23,299 51,152	20,976 47,940
101	iguss ciliber suppry ruilu	77,402	31,132	7/,340

## FOREST SERVICE PERMANENT APPROPRIATIONS

Identification co	de: 12-9922-0-2-302	1985 actual	1986 est.	1987 est.
SU	MMARY OF BUDGET AUTHORIT (in thousands of do			
Outlays	l: y t to P.L. 99-177:	153,080 102,916	146,939 150,371	129,997 135,189
	у	• • • • •	-4,827	-1,493
	y	153,080 102,916	146,939 145,544	129,997 133,696

# FOREST SERVICE PERMANENT APPROPRIATIONS OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-9922-0-2-302	1985 actual	1986 est.	1987 est.
	rect obligations:			· · · · · · · · · · · · · · · · · · ·
11.1	Personnel compensation: Full-time permanent	31,368	36,930	35,051
11.3	Other than full-time permanent	9,812	11,554	10,958
11.5	Other personnel compensation	3,407	4,018	3,813
11.8	Special personnel service payments	78	78	78
11.9	Total personnel compensation	44,665	52,580	49,900
P 12.1	ersonnel benefits: Civilian	10,683	12,576	11,935
13.0	Benefits for former personnel	1,212	1,427	1,354
21.0	Travel and transportation of persons	3,025	4,379	6,465
22.0	Transportation of things	973	1,409	2,080
23.1	Standard level user charges	2,069	2,224	1,865
23.2	Rental payments to others	619	896	1,323
23.3	Communications, utilities, and miscella- neous charges	1,877	2,717	4,011
24.0	Printing and reproduction	367	531	784
25.0	Other services	13,891	20,110	29,691
26.0	Supplies and materials	3,626	5,249	7,750
31.0	Equipment	1,411	2,043	3,016
32.0	Lands and structures	16,408	23,752	35,068
11.0	Grants, subsidies, and contributions	2	3	4
12.0	Insurance claims and indemnities	62	90	133
14.0	Refunds	10	14	21
99.0	Subtotal direct obligations	100,900	130,000	155,400
99.0	Reimbursable obligations: Other services		15	13
99.9	Total obligations	100,900	130,015	155,413

# FOREST SERVICE PERMANENT APPROPRIATIONS PERSONNEL SUMMARY

Identification code: 12-9922-0-2-302	1985 actual	1986 est.	1987 est.
Direct:			
Total number of full-time			
permanent positions	1,346	1,549	1,473
Total compensable workyears:	•	•	•
Full-time equivalent employment	1,928	2,270	2,154
Full-time equivalent of overtime	•	• //	,
and holiday hours	132	155	141
Average ES salary	68,043	68,043	68,043
Average GS grade	8.84	8.84	8.84
Average GS salary	24,605	24,605	24,605
Average salary of ungraded positions	25,674	25,674	25,674

# OPERATION AND MAINTENANCE OF QUARTERS PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-5219-0-2-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
10.00	Total obligations	3,925	5,293	5,500
	Financing:			
21.40 24.40	Unobligated balance start of year Unobligated balance, end of year	929	-929 736	-736 636
60.0001	Permanent: Appropriation (permanent, special fund)	4,854	5,100	5,400
71.00 72.40	Relations of obligations to outlays: Obligations incurred, net Obligated balance available, start	3,925	5,293	5,500
74.40	of year Obligated balance, end of year	 -693	693 <b>-</b> 935	935 1,095-
90.00	Outlays	3,232	5,051	5,340
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested: Budget authority Outlays Reduction pursuant to P.L. 99-177:	4,854 3,232	5,100 5,051	5,400 5,340
	Budget authority Outlays	• • • • •	-175	-44
	Total: Budget authority Outlays	4,854 3,232	5,100 4,876	5,400 5,296

# OPERATION AND MAINTENANCE OF QUARTERS OBJECT CLASSIFICATION (in thousands of dollars)

Div	12-5219-0-2-302			1987 est
F	rect obligations: Personnel compensation:			
1.1	Full-time permanent	1,004	1,004	1,029
1.3	Other than full-time permanent	453	453	472
1.5	Other personnel compensation	23	23	23
1.8	Special personnel service payments	3		
1.9	Total personnel compensation	1,483	1,480	1,524
12.1	Personnel benefits: Civilian	184	184	189
21.0	Travel and transportation of persons	26	42	44
22.0	Transportation of things	12	19	20
23.2	Rental payments to others	20	32	33
23.3	Communications, utilities, and miscella- neous charges	213	342	357
25.0	Other services	747	1,199	1,251
26.0	Supplies and materials	1,133	1,823	1,903
31.0	Equipment	16	26	27
32.0	Lands and structures	77	124	129
1.0	Grants, subsidies, and contributions	1	2	2
12.0	Insurance claims and indemnities	4	6	6
14.0	Refunds	9	14	15
9.9	Total obligations	3,925	5,293	5,500
	PERSONNEL SUMMARY	,		
_		1985 actual	1986 est.	1987 est
[	Direct:	41	40	42
	Total compensable workyears: Full-time equivalent employment	63	63	65
	Full-time equivalent of overtime and holiday hours			
	Average ES salary	 8.87	8.87	 8.87
	Average GS salary	24,814 24,444	24,814 24,444	24,814 24,444

# FOREST SERVICE PERMANENT APPROPRIATIONS PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-9921-0-2-852	1985 actual	1986 est.	1987 est.
	Program by activities:			
	<ol> <li>Payment to Minnesota</li> <li>Payments to counties, National</li> </ol>	716	716	716
	Grasslands	10,046	14,661	10,954
	Forests fund	224,937	212,241	298,036
10.00	Total obligations (object class 41.0)	235,699	227,618	309,706
	Financing:			
60.00	Budget authority (appropriation) (permanent, indefinite, special funds)	235,699	227,618	309,706
71.00	Relation of obligations to outlays: Obligations incurred, net	235,699	227,618	309,706
90.00	Outlays	235,699	227,618	309,706
Payi Payi Payi Distr Payi Payi	ibution of budget authority by account: ment to Minnesota ment to counties, National Grasslands ment to States, National Forests Fund ibution of outlays by account: ment to Minnesota ment to counties, National Grasslands ment to States, National Forests Fund	716 10,046 224,937 716 10,046 224,937	716 14,661 212,241 716 14,661 212,241	716 10,954 298,036 716 10,954 298,036
	SUMMARY OF BUDGET AUTHORITY (in thousands of doll			
	Enacted/Requested: Budget authority Outlays Proposed for later transmittal under proposed legislation:	235,699 235,699	227,618 227,618	309,706 309,706
	Budget authority Outlays Reduction pursuant to P.L. 99-177:	• • • • •	• • • • •	-224,816 -224,816
	Budget authority	••••	-9,788	• • • • •
	Total Budget authority Outlays	235,699 235,699	227,618 217,830	84,890 84,890

# FOREST SERVICE PERMANENT APPROPRIATIONS PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-9921-2-2-852	1985 actual	1986 est.	1987 est.
10.00	Total obligations (object class 41.0)			-224,816
	Financing			
40.00	Budget authority (appropriation) (permanent, indefinite, special fund)			-224,816
71.00	Relation of obligations to outlays: Obligations incurred, net			-224,816
90.00	Outlays			-224,816
	OBJECT CLASSIFICATION (in thousa	inds of dollars	)	
41.0	Grants, subsidies and contributions			-224,816





		1986	1986			Inc.(+)	Inc.(+)
	1005	Approp.	Estimate	1007	1007	or	or
	1985 Actual	Enacted to Date	with DCA Reduction $\frac{1}{2}$	1987 Base	1987 Estimate	Dec.(-) from 1986	
Cooperative work			(Dollars in	n thousand	s)		
Knutson-Vandenberg	70 764	70 400	e2	70 400			
(K-V) Reforestation \$ Thousand acres	70,764 194.6	70,128 201.1	67,114 	70,128 201.1	91,494 255.5	+21,366 +54.4	+21,366 +54.4
FTE	998	990		990	1,253	+263	+263
Timber stand							
improvement \$ Thousand acres		19,584 136.8	18,742	19,584 136.8	28,091 182.0	+8,507 +45.2	+8,507 +45.2
FTE	283	283		283	390	+107	+107
Other\$	30,639	31,092	29,755	31,092	35,546	+4,454	+4,454
FTE	690	699		699	760	+61	+61
Subtotal, K-V	104 747	150,000			160 000		
Receipts \$ Planned oblig. \$		120,804	115,611	120,804		+34,327	
FTE	1,971	1,972		1,972	2,403	+431	+431
Cooperative work-other		22 221			40.500		
Receipts \$ Planned oblig \$		38,991 34,287	34,287	34,287	42,600 42,485	+8,198	+8,198
FTE	621	629		629	725	+96	+96
Total, cooperative wo							
Receipts \$ Planned oblig \$		188,991 155,091	149,898	155,091	202,600 197,616	+42,525	+42,525
	2,592	2,601		2,601		+527	+527

Reductions are in planned obligations, since budget authority is not sequestrable, in accordance with Section 256 (a)(2) of the Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177.

## Appropriation Summary Statement

Funds received and deposited in trust from States, counties, timber sale operators, individuals, associations, and others are expended by the Forest Service as authorized by law and terms of the applicable trust agreements.

The work consists of protection and improvement of the National Forest System for the National Forest users, research investigations, reforestation, and administration of private forest lands.

### **Authorities**

Various Public Laws including the Act of June 30, 1914, Cooperative Funds Act, as amended; and 7 U.S.C. 2269; 16 U.S.C. 498, 572, 537, 572a, and 1643a.

Cooperative work (trust fund) for other activities--investigation, protection, and improvement of National Forests.
(05-96) 12-8028 302 SAGR HAGR
No expiration date.

P.L. 71-319, Act of June 9, 1930, Knutson-Vandenberg Act, as amended (16 U.S.C. 576b). Section 3.

Funds deposited by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stands of timber on areas cutover by the purchaser.

(05-96) 12-8028 302 SAGR HAGR No expiration date.

## Cooperative Work, Knutson-Vandenberg

#### General

Funds deposited by timber sale purchasers are used primarily for reforestation, timber stand improvement, and other resource activities to improve the future productivity of the renewable resources on timber sale areas. Accomplishments for this program are reported under activities in the National Forest System appropriation.

### Reforestation, K-V

## Objective

To reforest timber-sale areas.

# Program description

The Knutson-Vandenberg Act (K-V), as amended, provides that part of timber sale receipts may be used for needed reforestation work on timber sale areas. Funds to accomplish this work are deposited into a trust fund.

About 76 percent of the total reforestation work will be funded from K-V during the next few years. (See graph in "Reforestation and Stand Improvement" section under National Forest System).

### Increase for 1987

	1987	1987	
	Base	Estimate	Increase
	(Dol	ids)	
Reforestation, K-V \$ FTE	70,128 990	91,494 1,253	+21,366 +263

An increase of \$21,366,000 is proposed from the 1987 base.

The planned \$91,494,000 will provide the funding necessary to prepare sites and reforest 255,500 acres of National Forest land after completion of harvesting activities, compared to 201,100 acres in FY 1986.

The increase of 54,400 acres is due to the increased harvest in FY 1985, that is expected to continue in FY 1987.

The average cost of reforestation has risen from \$349 per acre in FY 1986 to \$358 per acre in FY 1987, due in part to expected higher reforestation contract rates. The lack of herbicides availability continues to require more extensive use of alternative methods of site preparation (manual clearing, prescribed fire) to control competing vegetation.

Salaries and benefits	+6,630
Travel	+272
Transportation of things	+158
Rent, communications, and utilities	+1,047
Supplies, materials, and equipment	+3,407
Land and structures	+1,294
Other contractual services	+8,558
Total	+21,366

## Timber Stand Improvement, K-V

### **Objective**

To improve timber growth and product quality on timber sale areas by thinning and release treatments of the residual stands.

# Program description

The Knutson-Vandenberg Act (K-V), as amended, provides that part of timber sale receipts may be used for timber stand improvement work. This work is financed from a trust fund similar to the financing for reforestation.

### Increase for 1987

1987	1987	
Base	Estimate	Increase
(Do	llars in thousa	nds)

Timber stand improvement,			
K-V\$	19,584	28,091	+8,507
FTF	283	390	+107

An increase of \$8,507,000 is proposed from the 1987 base.

The program will provide for the treatment of 182,000 acres of high priority stands that need either release or thinning. This increase of 45,200 acres over FY 1986 acres of 136,800 is the result of the continued increase in the harvest of National Forest timber sales.

The average unit cost per acre of stand improvement work is expected to rise from \$143 per acre in FY 1986 to \$154 per acre in FY 1987. This increase is due to expected higher contract rates, inability to use herbicides, and the selection of a high number of thinning projects in the Western Regions. These projects are necessary to protect the reforestation investments made in these stands 3 to 5 years ago.

+2,698
+107
+413
+1,405
+510
+3,374
•
+8,507

#### Other K-V

### Objective

To protect and improve all other resource values on timber sale areas in conjunction with timber improvement activities.

# Program description

The Knutson-Vandenberg Act (K-V), as amended, provides that a portion of timber sale receipts may be used to protect and improve the future productivity of renewable resources in timber sale areas. The work includes sale-area improvements, maintenance and construction of soil and water protection measures, wildlife habitat improvements, and range management measures.

Timber sold since the K-V Act was amended (1976) is now being harvested, and collections for other resource work on timber sale areas have increased.

Program emphasis will be on stream channel restoration and enhancement for resident and anadromous fish and on habitat improvement for game and nongame species in accordance with approved State comprehensive plans. Emphasis also will be given to watershed improvement for maintaining or improving soil productivity and water quality.

### Increase for 1987

	1987 <u>Base</u> (Dol	1987 Estimate lars in thousa	Increase nds)
Other K-V\$ FTE	31,092	35,546	+4,454
	699	760	+61

An increase of \$4,454,000 is proposed from the 1987 base.

As a result of the continued increase in the harvest of National Forest timber sales, the \$35,546,000 will provide for the wildlife, range, and soil and water resource activities prescribed to mitigate the effects of timber harvest or to enhance these resources in connection with other timber stand improvement activities.

The increases for FY 1987 are primarily in wildlife habitat and in soil and water improvements over a wide range of activities, such as specific wildlife nesting structures, stream improvements for fish, water bars, streambank restoration, slope stabilization measures, etc.

Salaries and benefits	+1,538
Travel	+54
Rent. communications, and utilities	+208
Supplies, materials and equipment	+705
Land and structures	+256
Other contractual services	+1,693
T 3	. 4 454
Total	+4,454

## Cooperative Work, Other

#### Objective

To use deposits received from cooperators for protecting and improving resources of the National Forest System as authorized by trust agreements.

# Program description

1. Administration, protection, construction and maintenance of National Forest System lands and interests therein, transportation system facilities, improvements, and resources. Various laws including:

The Act of June 30, 1914 (16 U.S.C 498); The Act of April 24, 1950, as amended (16 U.S.C. 572); The Act of October 13, 1964, as amended (16 U.S.C. 532-537); The Act of June 6, 1968 (16 U.S.C. 693d; and The Act of July 4, 1968 (16 U.S.C. 471h) are used for deposits to these trust accounts for specific work done on behalf of the depositor.

These deposits are used for the construction, reconstruction, and maintenance of roads, trails, and other improvements, and for scaling services, fire protection, and other resource purposes as authorized by law.

- 2. Forest and rangeland renewable resources research. The Act of June 30, 1914 (16 U.S.C. 498), and the Act of June 30, 1978 (16 U.S.C. 1643), authorize acceptance of deposits for forestry research. Deposits are received from State and other public agencies, industrial associations, and other private agencies to finance research projects of mutual interest and benefit. The deposits may be made in a single sum or on a continuing basis, and may partially or wholly cover the research cost. Cooperative research projects may involve any aspect of forestry, and vary widely as to scope and duration.
- 3. Administration, protection, construction, and improvement of non-Federal lands. The Act of April 24, 1950 (16 U.S.C. 572), authorizes acceptance of deposits for administering and protecting non-Federal land within or near the National Forests.

These deposits are made by owners of non-Federal lands intermingled with or adjacent to National Forests who wish their lands managed according to good forest management practices, including reforestation.

Work done with deposits includes fire protection of private lands (usually in small tracts) intermingled with Federal ownership. This arrangement helps both parties because it would be uneconomical for a private landowner to set up a fire control organization and because the Forest Service might otherwise have to suppress fires on adjoining ownerships to protect federal land.

Incr	ease
for	1987

	1987	1987	
	Base	Estimate	Increase
	(Do1	lars in thousa	nds)
11 - 11- 1			

Cooperative Work,			
Other\$	34,287	42,485	+8,198
FTE	629	725	+96

An increase of \$8,198,000 is proposed from the 1987 base. This increase reflects the increased deposits made by timber purchasers as a result of increased harvest activities and the increased participation by other National Forest users for activities they expect the Forest Service to perform.

These additional activities include needed road maintenance associated with increased timber harvest levels, cooperative fire protection work with various States, and research efforts in conjunction with ongoing projects.

Salaries and benefits	+2,328
Travel	+116 +269
Supplies, materials, and equipment	+776
Land and structures	+1,448 +3,261
Total	+8.198

Forest Service

# **Reforestation Trust Fund**

### Appropriation Summary Statement

A trust fund was established for reforestation and timber stand improvement when appropriated funds do not meet total needs of fiscal year programs.

### Authority

P.L. 96-451, Act of October 14, 1980, as amended (16 U.S.C. 1606 a(d)). Section 303.

Establishment of Reforestation Trust Fund to be held by the Secretary of Treasury. Funds to be invested and provided to the Secretary of Agriculture based on an estimated fiscal year need necessary to accomplish the treatment of acreage in the reforestation program.

(05-96) 20-8046-0-7-302 SENR HWME HMMF

### Objective

To prevent a backlog in reforestation and timber stand improvement work.

# Program description

Funds are to be used to accomplish the reforestation and timber stand improvement program as described in the "Reforestation and Stand Improvement" section of the National Forest System appropriation.

The Interior and Related Agencies Appropriations Act of 1986 provides that funds available in this account shall be merged with the National Forest System appropriation.

In FY 1987, it is planned that these funds will be utilized to accomplish reforestation and timber stand improvement work.

TRUST FUNDS

PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 12-9973-0-7-302	1985 actual	1986 est.	1987 est.
	Program by activities: Direct program: Cooperative work, KV Cooperative work, other Gifts and donations	112,403 37,457 42	224,130 74,686 84	224,990 74,950 60
10.00	Total obligations	149,902	298,900	300,000
	Financing:			
21.40 21.40	Treasury balance	-420,569 -228	-505,302 -253	-361,585 -250
24.40	Treasury balance	505,302	361,585	259,241
24.40 39.00	U.S. securities (par) Budget authority	253 234,660	$\frac{250}{155,180}$	300 197,706
40.0001 40.0002	Current: Budget authority: Appropriation Reduction pursuant to P.L. 99-190	35	90 -1	90
43.0001	Appropriation (adjusted)	35	89	90
60.00	Budget authority (appropriation) (permanent indefinite)	234,625	155,091	197,616
71.00 72.40 74.40	Relation of obligations to outlays: Obligations incurred, net Obligated balance, start of year Obligated balance, end of year	149,901 33,606 101,640	298,900 -101,640 -30,001	300,000 30,001 -139,039
90.00	Outlays	285,147	167,259	190,962
	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested: Budget authority Outlays Reduction pursuant to P.L. 99-177:	234,660 285,147	155,180 167,259	197,706 190,962
	Budget authorityOutlays	• • • •	-4 -4,430	-767
	Total: Budget authority Outlays	234,660 285,147	155,176 162,829	197,706 190,195

TRUST FUNDS

OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 12-9973-0-7-302	1985 actual	1986 est.	1987 est.
	rect obligations: Personnel compensation:	41 057	41,198	40 527
	Full-time permanent	41,057		49,537
11.3	Other than full-time permanent	12,785	12,830	15,434
11.5	Other personnel compensation	2,708	2,716	3,270
11.8	Special personnel service payments	156	154	184
11.9	Total personnel compensation	56,706	56,898	68,425
12.1	Personnel benefits: Civilian	9,436	9,468	11,386
13.0	Benefits for former personnel	1,604	1,610	1,936
21.0	Travel and transportation of persons	1,543	4,362	4,124
22.0	Transportation of things	865	2,446	2,313
23.1	Standard level user charges	771	828	695
23.2	Rental payments to others	1,253	3,543	3,350
23.3	Communications, utilities, and miscella- neous charges	3,252	9,194	8,693
24.0	Printing and reproduction	164	464	439
25.0	Other services	46,825	132,386	125,171
26.0	Supplies and materials	13,752	38,880	36,761
31.0	Equipment	2,644	7,475	7,068
32.0	Lands and structures	10,762	30,427	28,769
41.0	Grants, subsidies, and contributions	3	8	8
42.0	Insurance claims and indemnities	53	150	142
44.0	Refunds	269	761	720
99.9	Total obligations	149,902	298,900	300,000

TRUST FUNDS
PERSONNEL SUMMARY

Identification code: 12-9973-0-7-302	1985 actual	1986 est.	1987 est
Direct:			
Total number of full-time			
permanent positions	1,843	1,808	2,178
Total compensable workyears:			
Full-time equivalent employment	2,592	2,601	3,128
Full-time equivalent of overtime	•		_
and holiday hours	103	103	124
Average ES salary	68,043	68,043	68,043
Average GS grade	8.65	8.65	8.65
Average GS salary	23,493	23,493	23,493
Average salary of ungraded positions	22,828	22,828	22,828

REFORESTATION TRUST FUND
PROGRAM AND FINANCING (in thousands of dollars)

	Identification code: 20-8046-0-7-302	1985 actual	1986 est.	1987 est.
	Program by activities:			
10.00	Total obligations	78,556	34,749	30,000
	Financing:			
21.40 24.40	Unobligated balance start of year Unobligated balance, end of year	-45,900 4,749	-4,749 	
60.00	Budget authority (appropriation) (permanent)	37,405	30,000	30,000
71.00 72.40	Relations of obligations to outlays: Obligations incurred, net Obligated balance, start of year	78,556	34,749	30,000
74.40	Obligated balance, end of year			
90.00	Outlays	78,556	34,749	30,000
A CHINESE STATE OF THE	SUMMARY OF BUDGET AUTHORITY (in thousands of dol			
	Enacted/requested:			
	Budget authority	37,405	30,000	30,000
	Outlays	78,556	34,749	30,000
	Budget authority Outlays	• • • • •	-1,032	-258
	Total:			
	Budget authority Outlays	37,405 78,556	30,000 33,717	30,000 29,742

# REFORESTATION TRUST FUND OBJECT CLASSIFICATION (in thousands of dollars)

	Identification code: 20-8046-0-7-302	1985 actual	1986 est.	1987 est.
Di	rect obligations: Personnel compensation:	-	·	
11.1	Full-time permanent	11,631		8,439
11.3	Other than full-time permanent	5,269		3,818
11.5	Other personnel compensation	937		680
11.8	Special personnel service payments	139		101
11.9	Total personnel compensation	17,976		13,038
12.1	Personnel benefits: Civilian	2,149		1,571
13.0	Benefits for former personnel	1,321		966
21.0	Travel and transportation of persons	645		162
22.0	Transportation of things	414		104
23.1	Standard level user charges	153		83
23.2	Rental payments to others	360		91
23.3	Communications, utilities, and miscella- neous charges	919		231
24.0	Printing and reproduction	16		4
25.0	Other services	36,484	34,749	9,200
26.0	Supplies and materials	13,289		3,338
31.0	Equipment	1,637		411
32.0	Lands and structures	3,078		773
41.0	Grants, subsidies, and contributions	16		4
42.0	Insurance claims and indemnities	97		24
44.0	Refunds	2		
99.9	Total obligations	78,556	34,749	30,000
	PERSONNEL SUMMAR	Y		
		1985 actual	1986 est.	1987 est.
	Direct: Total number of permanent positions	466		350
	Total compensable workyears: Full-time equivalent employment	821		600
	Full-time equivalent of overtime and holiday hours	40		29
	Average ES salary	68,043		68,043
	Average GS grade	9.77 26,751		9.77 26,751
	Average salary of ungraded positions	18,477		18,477





Forest Service

# **Human Resource Programs**

Objective

To provide human and natural resource benefits by administering and hosting programs in work, training, and education for the unemployed, underemployed, elderly, young, and others with special needs.

Program
description

The Forest Service participates in cooperative employment programs such as those authorized by P.L. 97-300, the Job Training Partnership Act of 1982 (Job Corps and miscellaneous hosted programs); P.L. 93-408, the Youth Conservation Corps; P.L. 89-73, the Older Americans Program, as amended; and P.L. 92-300, the Volunteers in the National Forests, as amended. About 73,932 people are expected to participate in Forest Service administered employment and volunteer programs during FY 1986.

Following is a brief description of HRP programs for FY 1985 through FY 1987.

- Job Corps. In agreement with the Department of Labor, the Forest Service operates 18 Job Corps Civilian Conservation Centers (7 of which are coeducational) providing basic education and job training to disadvantaged youth. The main purpose of the Centers is to produce graduates who are able to find productive work, re-enter school, or join the military. Enrollees receive room, board, clothing, skills training, education, and a monthly allowance instead of wages.

In the 1984 program year (July 1, 1984 to June 30, 1985), 8,664 young men and women participated in the program funded at \$54.0 million. In addition to acquiring job skills, Job Corps participants accomplished work valued at \$19.1 million.

In the 1985 program year (July 1, 1985 to June 30, 1986), we estimate that 7,732 young men and women will participate in a program funded at \$56.3 million.

In the 1986 program year (July 1, 1986 to June 30, 1987), we estimate 7,732 young men and women will participate in a \$58.0 million program.

In program year 1987 (July 1, 1987 to June 30, 1988), \$16,700,000 is proposed. The Department of Labor (DOL) will provide further details relative to possible Jobs Corp Center closures.

- Youth Conservation Corps. The Youth Conservation Corps (YCC) is a summer employment program for young men and women, aged 15 through 18, who work, learn, and earn together on projects that further the development and conservation of natural resources.

In FY 1985, the Forest Service was authorized to use not less than \$3.2 million for high priority projects to be carried out by the YCC program. The program served 2,293 young people. Of the participants, 15 percent were minorities and 44 percent were women. They accomplished 374 person-years of work valued at \$4.5 million, with a return of \$1.22 on every YCC dollar.

For FY 1986, about 2,400 young people are expected to participate in a \$3.4 million program. Funding will be provided by benefiting Forest Service programs. Conservation work valued at about \$4.5 million will be carried out.

A YCC program is not proposed for FY 1987 because the Administration is emphasizing programs specifically targeted to disadvantaged youth.

- Senior Community Service Employment Program. The Forest Service, in cooperation with the Department of Labor, sponsors this program authorized under Title V of the Older Americans Act. The program has three fundamental purposes: community service to the public, part-time employment and supplemental income, and training and transition of participants to the private sector labor market. The program employs economically disadvantaged persons age 55 and older and fosters a renewed sense of self-worth and community involvement among traditionally poor and hard-to-employ older individuals.

The Forest Service's interagency agreement for the period July 1, 1984, through June 30, 1985, provided \$20.9 million, which employed 6,202 persons (24 percent minorities and 39 percent women). Participants accomplished 2,833 person-years of work valued at \$33.1 million. The Government realized a return of \$1.58 for each dollar invested. During program years 1985, 1986, and 1987 (beginning July 1, 1985 through June 30, 1988), it is anticipated that programs will remain static.

- Volunteers in the National Forests. The Volunteers program provides assistance in natural resource protection and management at nominal costs. The program offers individuals the opportunity to contribute their services to assist in managing the Nation's natural resources.

The Touch America Program (TAP), a component of the volunteer program, includes special emphasis on participation by youth aged 14 to 17. TAP is a partnership of private sector organizations sponsoring teenage youths to do conservation work. During FY 1985, 6,690 youths participated in TAP.

In FY 1985, 45,907 volunteers served in the Forest Service, including TAP participants. The appraised value of work performed by volunteers in 1985 was \$22.5 million.

In FY 1986 and FY 1987, the Volunteers program will continue to receive strong emphasis.

- Hosted Programs. The Forest Service also serves as a host agency by providing work opportunities for programs administered by State and local governments. In FY 1985, 741 person-years of work were accomplished, valued at \$8.7 million. There were 8,603 participants in these programs.

In FY 1986, an estimated 9,000 people will participate in hosted programs doing conservation work valued at approximately \$9.5 million.

A minimal increase over FY 1986 is estimated for the FY 1987 program.

Summary of Human Resource Programs FY 1985 Actual/Program Year Projected

Activity	Value o Mork Program Accom- Funding plishe (Dollars in millions)	Value of Mork Accom- plished n millions)	Number of Participants	Percent Women Minority	ent Inority	Person- Years Accom- plished
Youth Conservation $1/$ Corps	Unfunded	\$ 4.5	2,293	44	15	374
Job Corps $\frac{2}{}$	\$ 56.3	20.0	7,732	11	55	3,866
Senior Community Service Employment Program $\frac{2}{2}$	21.8	33.5	6,425	40	24	2,875
Volunteer $\frac{3}{2}$	Unfunded	22.5	45,907	33	6	1,787
Hosted Programs	Unfunded	8.7	8,603	16	40	741
	\$ 78.1	\$ 89.2	70,960	1	1	9,643

<sup>1/</sup> Congressional earmark of not less than \$3.2 million to be expended from benefiting program funds in National Forest System. Operated a \$3.7 million program.

Statistics estimated for program year (July 1, 1985 through June 30, 1986). 72

<sup>3/</sup> Includes youth participation in the Touch America Program.

Summary of Human Resource Programs

FY 1986 Estimates

Activity	Program Funding (Dollars	Value of Work Program Accom- Funding plished (Dollars in millions)	Number of Participants		Percent Women Minority	Person- Years Accom- plished
Youth Conser- $1/$	Unfunded	\$ 4.5	2,400	45	15	375
Job Corps $\frac{2}{}$	\$ 58.0	21.0	7,732	12	55	3,866
Service Employment Program 2/	21.8	33.5	6,425	41	24	2,875
Volunteers $\frac{3}{}$	Unfunded	23.5	48,400	35	10	1,870
Hosted Programs	Unfunded	9.5	6,000	20	41	775
Total	\$ 79.8	\$ 92.0	73,957	1	1	9,761

Congressional earmark of not less than \$3.4 million to be expended from all Forest Service benefiting program funds. 1/

Statistics estimated for program year (July 1, 1986 through June 30, 1987). 72

 $<sup>\</sup>underline{3}/$  Include youth participation in the Touch America Project.

Summary of Human Resource Programs

FY 1987 Estimates

Youth Conservation Corps $\underline{1}/$ \$ \$ \$	Activity	Program Funding (Dollars	Value of Mork Program Accom- Funding plished (Dollars in millions)	Number of Participants	Percent Wom <u>en Mino</u> rity	int nority	Person- Years Accom- plished
16.7	nser- orps $1/$	¦ ⇔	₩	1	ł	;	1
21.8 34.0 6,425 41 24 Unfunded 24.1 51,600 36 11 Unfunded 10.5 9,300 23 42 \$ 38.5 \$ 68.6 67,325	s <u>2</u> /	16.7	1	1	1	1	1
Unfunded 24.1 51,600 36 11 11 15	ommunity Employment 3/	21.8	34.0	6,425	41	24	2,900
Unfunded 10.5 9,300 23 42 8 38.5 \$ 68.6 67,325 5	rs <u>4</u> /	Unfunded	24.1	51,600	36	11	1,930
\$ 68.6 67,325	Hosted Programs	Unfunded	10.5	9,300	23	45	800
		\$ 38.5	\$ 68.6	67,325	1	1	5,630

 $<sup>\</sup>underline{1}/$  A YCC program is not proposed for FY 1987.

Statistics are not available for program year July 1, 1987 through June 30, 1988. Possible Job Corps Centers closures will be coordinated with Department of Labor. <u>7</u>7

<sup>3/</sup> Projects for program year July 1, 1987 through June 30, 1988 are based on program 1986 level.

 $<sup>\</sup>overline{4}/$  Includes youth participation in the Touch America Project.

Work Accomplishment by Volunteers, YCC, and Hosted Programs for Selected Activities

FY 1985 Actual

Activities and Unit of Measure	Volunteers	CC	SCSEP <sup>—</sup>	0ther	Total
Recreation construction and rehabilitation - PAOT (Persons-atone-time) days	105	267	10,004	20,100	30,476
Recreation management - PAOT (Persons-at-one-time) days	3,019,533	661,845	7,582,842	735,828	12,000,048
Fish and wildlife habitat improvement (acres)	2,033	417	603	5,852	8,905
Range management (acres)	2,085	2,264	911	9,220	14,480
Reforestation (acres)	222	140	215	286	1,163
Timber stand improvement (acres)	308	338	35	371	1,052
Water and soil resource improvement (acres)	48	25	85	17	175
Property boundary location (miles)	сT	34	118	4	157
Trail construction and recontruction (miles)	135	46	59	54	294
Fuel treatment management (acres)	58	302	122	309	791
Wilderness management (acres)	581,428	7,300	3,250	33,694	625,672

 $\underline{1}/$  Estimated accomplishment for program year 1985 (July 1, 1986 through June 10, 1986).

Work Accomplishment by Human Resource Programs for Selected Activities

FY 1986 Estimates

Activities and Unit of Measure	Volunteers	JOA	SCSEP 1/	Other	Total
Recreation construction and rehabilitation - PAOT (Persons-atone-time) days	109	277	10,404	20,904	31,694
Recreation management - PAOT (Persons-at-one-time) days	3,140,314	688,319	7,886,156	765,261	12,480,050
Fish and wildlife habitat improvement (acres)	2,114	434	627	980*9	9,261
Range management (acres)	2,168	2,355	947	6,589	15,059
Reforestation (acres)	231	146	224	609	1,210
Timber stand improvement (acres)	320	352	36	386	1,094
Water and soil resource improvement (acres)	20	26	88	18	182
Property boundary location (miles)	2	35	123	ഹ	165
Trail construction and reconstruction (miles)	140	48	61	99	305
Fuel treatment management (acres)	09	314	127	321	822
Wilderness management (acres)	604,685	7,592	3,380	35,042	669,039

1/ Estimated accomplishments for program year 1986 (July 1, 1986 through June 30, 1987).

Work Accomplishment by Human Resource Programs for Selected Activities

FY 1987 Estimates

Activities and Unit of Measure	Volunteers	YCC 1/	SCSEP 2/	0ther	Total	
Recreation construction and rehabilitation - PAOT (Persons-atone-time) days)	113	1	10,804	21,708	32,625	1
Recreation management - PAOT (Persons-at-one-time) days	3,261,096	1	8,189,469	794,694	12,245,259	
Fish and wildlife habitat improvement (acres)	2,196	1	651	6,320	9,167	
Range management (acres)	2,252	1	984	9,958	13,194	
Reforestation (acres)	240	1	232	633	1,105	
Timber stand improvement (acres)	333	1	38	401	772	
Water and soil resource improvement (acres)	52	1	95	18	162	
Property boundary location (miles)	2	1	127	ស	134	
Trail construction and reconstruction (miles)	146	1	64	28	268	
Fuel treatment management (acres)	63	1	132	334	529	
Wilderness management (acres)	627,942	1	3,510	36,390	667,842	

1/ A YCC program is not proposed for 1987.  $\overline{2}/$  Estimated accomplishments for program year 1987 (July 1, through June 30, 1988).





## **Language Changes**

Proposed change in language:

### FOREST RESEARCH

- 1. For necessary expenses of forest research as authorized by law, [\$126,283,000, of which \$6,840,000 shall remain available until expended for competitive research
- grants, as authorized by section 5 of Public Law 95-307.] \$111,481,000 to remain available until expended.

The first change removes the reference to competitive research grants, which are not proposed in in FY 1987.

The second change is proposed to make the Forest Research appropriation available until expended, as authorized by Section 7 of the Forest and Rangeland Renewable Resources Research Act of 1978. This authorization was made by Congress in recognition of the long-term research conducted by the Forest Service Research organization.

Until this year annual funds have been used to enter into grants, cooperative agreements, and contracts for long-term research. The Government Accounting Office (GAO), in a ruling for the National Institute of Health, has said that unless an agency has specific authority to award these grants, agreements, and contracts for more than one year, all executed agreements must be terminated at the end of the fiscal year. If this restriction is implemented generally, it will have a major effect on the Forest Service extramural research program, where current policy is to allow a maximum duration of five years for each agreement.

Proposed change in language:

### STATE AND PRIVATE FORESTRY

- 1. For necessary expenses of cooperating with, and providing technical [and financial] assistance to States, Territories, possessions, and others; and for forest pest management activities, [\$57,986,000] \$24,871,000, to remain
- 2. available [for obligation] until expended, to carry out activities authorized in Public Law 95-313: Provided, That a grant of [\$3,000,000] \$2,800,000 shall be made to the State of Minnesota for the purposes authorized by section 6 of Public Law 95-495.

The first change removes provision for financial assistance through grants or cooperative agreements to States. All State grants, except for \$2.8 million to Minnesota for Boundary Waters Canoe Area activities, are proposed to be eliminated.

The second change is a technical correction.

Proposed change in language:

### NATIONAL FOREST SYSTEM

For necessary expenses of the Forest Service, not otherwise provided for, for management, protection, improvement, and utilization of the National Forest

1. System, and for liquidation of [obligations] advances pursuant to 16 U.S.C. 556d incurred in the preceding fiscal year for forest fire protection and emergency rehabilitation, including administrative expenses associated with the management of funds provided under the heads "Forest Research", "State and Private Forestry", "National Forest System", "Construction", and "Land Acquisition", [\$1,054,629,000]

- \$889,488,000, of which [\$182,053,000] \$88,033,000 for reforestation[,] and timber stand improvement, cooperative law enforcement, and maintenance of forest development roads and trails shall remain available for obligation until
- 2. September 30, [1987.] 1988. [Provided, That the unobligated balances available September 30, 1985 and funds becoming available in fiscal year 1986 under the Act of October 14, 1980 (16 U.S.C. 1606), shall be transferred to and merged with the National Forest System appropriation account as of October 1, 1985: Provided further, That notwithstanding any other provision of law, subsection (e) of section 303 of the Act of October 14, 1980, as amended by the Act of January 6, 1983, Public Law 97-424 (16 U.S.C. 1606), is repealed and subsection (d) of section 303 of the Act of October 14, 1980, as amended by the Act of January 6, 1983, Public Law 97-424 (16 U.S.C. 1606), is amended to read as follows:

"(d) The Secretary of Agriculture is hereafter authorized to obligate such sums as are available in the Trust Fund (including any amounts not obligated in previous fiscal years) for-

- (1) reforestation and timber stand improvement as specified in section (3)(d) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601 (d)): and
- (2) properly allocable administrative costs of the Federal Government for the activities specified above.".]

The first change is a technical correction to conform to the statutes authorizing advances.

The second change removes a one-time amendment to authorizing legislation.

Proposed change in language:

### CONSTRUCTION

For necessary expenses of the Forest Service, not otherwise provided for, for construction, [\$223,865,000] \$195,197,000, to remain available until expended, of which [\$27,449,000] \$11,736,000 is for construction and acquisition of buildings and other facilities; and [\$196,416,000] \$183,461,000 is for construction of forest roads and trails by the Forest Service as authorized by 16 U.S.C. 532-538 and 23 U.S.C. 101 and 205: Provided, That funds becoming available in fiscal year [1986] 1987 under the Act of March 4, 1913 (16 U.S.C. 501), shall be transferred to the General Fund of the Treasury of the United States: Provided

- 1. further, That [road construction standards used to construct Forest Service roads, purchaser credit roads, or purchaser elect roads shall be applied, or other management initiatives or administrative cost-saving actions taken, including reductions in personnel or overhead charges, in fiscal year 1986 in a manner so as to achieve a 5 per centum reduction in the average cost per road mile as compared to fiscal year 1985: Provided further, That such actions shall be taken so as to achieve this 5 per centum reduction in each Forest Service region: Provided further, That notwithstanding any other provision of this Act or any other provision of law, \$9,915,000 of the contract authority available in the Federal Highway Trust Fund and not otherwise appropriated shall be available to the Forest Service for road construction to Forest Development Road Standards to serve the Mount St. Helens National Volcanic Monument, Washington: Provided further, That the foregoing shall not alter the amount of funds or contract authority that would otherwise be available for road construction to serve any State other than the
- State of Washington.] no more than \$154,321,000 to remain available without fiscal year limitation, shall be obligated for construction of forest roads by timber purchasers.

The first change removes a one-time amendment to authorizing legislation.

The second change restores the purchaser credit limitation. In FY 1986, carryover authority will be used. We project that insufficient carryover authority will remain for use in FY 1987.

Proposed change in language:

#### LAND ACQUISITION

For expenses necessary to carry out the provisions of the Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 4601-4-11), including administrative expenses, and for acquisition of land or waters, or interest therein, in accordance with statutory authority applicable to the Forest Service [\$28,300,000] \$3,206,000, to be derived from the Land and Water

1. Conservation Fund, to remain available until expended[: Provided, That of the amount appropriated, \$3,900,000 shall be paid to Edwards Investments, an Idaho partnership, upon delivery of a quitclaim deed to the United States conveying acceptable title to all of Edwards Investments' interest in all of those portions of a former Chicago, Milwaukee, St. Paul, and Pacific Railroad right-of-way between Avery, Idaho and St. Regis, Montana that cross or adjoin Federal lands, including all of Edwards Investments' interests in all improvements on said right-of-way. Upon acquisition, some or all of the right-of-way may be used as a road and available for public travel where determined appropriate by the Chief of the Forest Service].

This change removes specific language covering a one-time payment to Edwards Investments.

Proposed change in language:

### ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

1. For acquisition of lands [in a cordance with the Act of December 4, 1967, as amended (16 U.S.C. 484a), all] to be derived from funds deposited by State, county or municipal governments, public school districts or other public school

2. authorities pursuant to [that Act,] the Act of December 4, 1967 as amended (16 U.S.C. 484a), to remain available until expended.

Both changes are technical corrections.

Proposed change in language:

### RANGE BETTERMENT FUND

1. For necessary expenses of range rehabilitation, protection, and improvement [in accordance with section 401(b)(1), of the Act of October 21, 1976, Public Law 94-579, as amended,] 50 per centum of all moneys received during the prior fiscal year, as fees for grazing domestic livestock on lands in National Forests in the

2. sixteen Western States, <u>pursuant to Section 401(b)(1) of Public Law 94-579</u>, as amended, to remain available until expended.

Both changes are technical corrections.

## **Administrative Provisions**

### 1. Amend the following provision:

Appropriations to the Forest Service for the current fiscal year shall be available for: (a) purchase of not to exceed [252] 245 passenger motor vehicles of which [13] 8 will be used primarily for law enforcement purposes and of which [233] 235 shall be for replacement only; acquisition of [161] 148 passenger motor vehicles from excess sources, and hire of such vehicles; operation and maintenance of aircraft, the purchase of not to exceed 2 for replacement only, and acquisition of [43] 58 aircraft from excess sources; notwithstanding other provisions of law, existing aircraft being replaced may be sold, with proceeds derived or trade-in value used to offset the purchase price for the replacement aircraft; (b) services pursuant to the second sentence of section 706(a) of the Organic Act of 1944 (7 U.S.C. 2225), and not to exceed \$100,000 for employment under 5 U.S.C. 3109; (c) uniform allowances for each uniformed employee of the Forest Service, not in excess of \$400 annually; (d) purchase, erection, and alteration of buildings and other public improvements (7 U.S.C. 2250); (e) acquisition of land, waters, and interests therein, pursuant to the Act of August 3, 1956 (7 U.S.C. 428a); (f) for expenses pursuant to the Volunteers in the National Forest Act of 1972 (16 U.S.C. 558a, 558d, 558a note); and (g) for debt collection contracts in accordance with 31 U.S.C. 3718(c).

### 2. Delete the following provision:

[None of the funds made available under this Act shall be obligated or expended to change the boundaries of any region, to abolish any region, to move or close any regional office for research, State and private forestry, or National Forest System administration of the Forest Service, Department of Agriculture, without the consent of the House and Senate Committees on Appropriations and the Committee on Agriculture, Nutrition, and Forestry in the United States Senate and the Committee on Agriculture in the United States House of Representatives.]

This change removes language that restricts the flexibility needed to make changes to improve organizational effectiveness and efficiency and reduce general administration costs. The Forest Service will continue to consult with the Appropriations Committees, Committees on Agriculture, Nutrition, and Forestry, and individual members of Congress concerned, prior to effecting any such change.

#### 3. Amend the following provision:

Any appropriations or funds available to the Forest Service may be advanced to the National Forest System appropriation for the emergency rehabilitation of burned-over lands under its jurisdiction. [The Secretary of Agriculture may authorize the expenditure of any no year appropriation available to the Forest Service for emergency actions related to emergency flood repair needs at the Monongahela National Forest and at the Parsons, West Virginia, Research Laboratory: Provided, That funds made available for such emergency actions shall be available for the payment of obligations incurred during the preceding fiscal year funds expended pursuant to this provision must be replenished by a supplemental appropriation which must be requested as promptly as possible.]

This change removes a one time authorization for flood damages not needed for FY 1987.

### 4. No change to the following provision:

Appropriations and funds available to the Forest Service shall be available to camply with the requirements of section 313(a) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1323(a)).

#### 5. Delete the following provision:

[The appropriation structure for the Forest Service may not be altered without advance approval of the House and Senate Committees on Appropriations.]

This change removes the legal requirement that the Forest Service consult with the House and Senate Committees on Appropriations before changing the appropriation structure. The Forest Service will continue to consult with the Committees before submitting any proposed changes.

### 6. No change to the following provision:

Funds appropriated to the Forest Service shall be available for assistance to or through the Agency for International Development in connection with forest and rangeland research, and technical information and assistance in foreign countries.

#### 7. Amend the following provision:

Funds previously appropriated for timber salvage sales may be recovered from receipts deposited for use by the applicable national forest and credited to the Forest Service Permanent Appropriations to be expended for timber salvage sales from any national forest[: Provided further, That no less than \$24,000,000 shall be made available to the Forest Service for obligation in fiscal year 1986 from the Timber Salvage Sale Fund appropriation].

This change removes a one time appropriation limitation which provided for an increase in the salvage sale volume to be offered in FY 1986.

### 8. Delete the following provision:

[Provisions of section 702(b) of the Department of Agriculture Organic Act of 1944 (7 U.S.C. 2257) shall apply to appropriations available to the Forest Service only to the extent that the proposed transfer is approved by the House and Senate Committees on Appropriations in compliance with the reprogramming procedures contained in House Report 97-942.]

This change will enable the Forest Service to respond to unforeseen events that necessitate immediate action. We will continue to follow the Committees' guidelines for the reprogramming of funds.

#### 9. Delete the following provision:

[No funds appropriated to the Forest Service shall be transferred to the Working Capital Fund of the Department of Agriculture without the approval of the Chief of the Forest Service.]

This change is proposed to eliminate a requirement that intrudes in the working relationships of the Forest Service and the Department of Agriculture. Funding responsibility for the Department's Working Capital Fund is determined by rational formulas and each agency in the Department must pay its fair share of the Fund.

#### 10. Delete the following provision:

[Not to exceed \$900,000 shall be available from National Forest System appropriations or permanent appropriations for the specific purpose of removing slash and cull logs from the Bull Run, Oregon, watershed to preserve water quality and reduce fire hazards.]

This change is proposed because authority will no longer be needed in FY 1987. Salvage sale operations in the Bull Run watershed began in FY 1984 with timber Salvage Sale Funds. These funds were used to examine the extent of damage, initiate the development of the individual timber sales and gather road access, watershed, and wildlife information. Initial negotiations with the city of Portland, Oregon, were begun on the water quality standards for watershed protection. These negotiations are continuing. The funds needed for FY 1986 have been programmed. A continuing authorization of \$900,000 for the Bull Run watershed is not needed for FY 1987 because the enabling legislation, 16 U.S.C. 1681, will expire at the end of FY 1986.

#### 11. Delete the following provisions:

[None of the funds made available under this Act shall be obligated or expended to adjust annual recreational residence fees to an amount greater than that annual fee in effect at the time of the next to last fee adjustment, plus 50 per centum. In those cases where the currently applicable annual recreational residence fee exceeds that adjusted amount, the Forest Service shall credit to the permittee that excess amount, times the number of years that that fee has been in effect, to offset future fees owed to the Forest Service.]

[Current permit holders who acquired their recreational residence permit after the next to last fee adjustment shall have their annual permit fee computed as if they had their permit prior to the next to last fee adjustment, except that no permittee shall receive an unearned credit.]

This change deletes provisions on recreation residence fees. An agreement between the Forest Service and permit holders is expected to be reached in fiscal year 1986.

#### 12. Delete the following provision:

[Notwithstanding any delegations of authority provided for in regulations of the Department of Agriculture or in the Forest Service manual, the Chief of the Forest Service shall, personally and without aid of mechanical devices or persons acting on his behalf, execute (1) all deeds conveying federally owned land which exceeds \$250,000 in value, (2) all acceptances of options on lands to be acquired which exceed \$250,000 in value, (3) all recommendations that condemnation be initiated, (4) all letters accepting donations of land, (5) all decisions on appeals of decisions related to land transactions made by regional foresters, and (6) land related transmittals to the House or Senate Committee on Appropriations, including all proposals for congressional action such as the acquisition of lands in excess of the approved appraised value, condemnation actions, and other items covered in reprogramming guidelines.]

This change is proposed to eliminate a significant impediment to the processing of actions necessary to provide prompt and efficient service to the public. Qualified line officers were previously designated to exercise this authority and we believe these line officers are better able to carry out this function. Actions are being taken to address the Committee's concerns on the quality and responsiveness of the lands function. The Senate's apparent intent to limit this restriction on signing authority to FY 1986 will be met if this proposed change is accepted.

### 13. Delete the following provision:

[Funds available to the Forest Service shall be available to conduct a program of not less than \$3,400,000 for high priority projects within the scope of the approved budget which shall be carried out by Youth Conservation Corps as if authorized by the Act of August 13, 1970, as amended by Public Law 93-408.]

This change removes the language for the Youth Conservation Corps, which is not proposed for fiscal year 1987.



## **Special Exhibits**

### Passenger-Carrying Vehicles

The Forest Service is a field organization that operates in remote sections of the country. Public transportation is not available in most locations. There are over 229 million acres within the boundaries of the National Forests and about 726 million acres of State and private forest land within areas covered by cooperative forest programs.

The Forest Service fleet comprises over 16,000 pieces of equipment, ranging from sedans and pickup trucks to bulldozers and motor graders. The Forest Service uses fleet management centers or commercial rental services to the fullest practical extent when it is cost effective.

Forest officers use passenger-carrying vehicles in protecting and managing the National Forest System lands, research, State and private forestry, and law enforcement activities.

#### Additions

The Forest Service proposes to purchase 10 additional passenger-carrying vehicles, of which two are for law enforcement, to replace pickup and utility trucks and carryalls. Passenger carrying vehicles are less costly to operate and maintain than trucks.

Replacements

The Forest Service proposes to replace 235 of the 1,209 passenger-carrying vehicles now in operation that meet the requirements of having traveled more than 60,000 miles and/or being more than 6 years old.

Six replacement law enforcement vehicles requested are for use by Forest Service criminal investigators. The Forest Service does not obtain high performance engines, but the remaining components of a type IV vehicle (suspension and cooling system for weight, electrical system for communications, equipment, size and configuration for multipurpose uses) meet the needs of criminal investigators. Ordering these features separately would be more costly than ordering the "police special" with small engine options.

These type IV vehicles obtained through the Government Services Administration (GSA) are necessary to:

- 1. Provide an adequate system of communications equipment to ensure responsiveness and employee safety.
- 2. Provide a multi-use vehicle which will safely and efficiently haul 600 or more pounds of investigative equipment and simultaneously transport Federal prisoners.
- 3. Provide security (as compared with a utility vehicle) for expensive investigative equipment, such as night viewing devices.
- 4. Provide adequate separation between Federal prisoners and Federal officers, and provide a safe means of transporting prisoners.

## Passenger-carrying vehicles

## Age Data (as of September 30, 1985)

Year	Number of Vehicles
1979 and older 1980 1981 1982 1983 1984 1985	136 291 239 92 134 105 58
Total	1,055

## Mileage Data (as of September 30, 1985)

Miles	Number of Vehicles
60,000 and over 50,000 to 59,999 40,000 to 49,999 30,000 to 39,999 20,000 to 29,999 10,000 to 19,999 0 to 9,999	404 174 126 91 85 98 
Total	1,055

### Federal Excess Personal Property, Vehicles, and Aircraft

#### General

The Forest Service is authorized by 40 U.S.C. 483 to loan property, no longer required by Federal agencies, to States for rural and wildland fire protection. The States can use the property in their protection program or assign the loaned property to cooperating volunteer rural fire departments.

Property on loan to States is also replaced, when possible, with equipment excess to Federal agency needs.

Excess property is directed to areas with the largest potential efficiency gain based on an analysis of fire protection needs. Funding is not required to purchase property through this program.

Passenger-carrying Vehicles

For FY 1987, an estimated 148 passenger-carrying vehicles will be replaced or acquired.

The current fleet on loan to the 50 States and territories is 202.

#### Aircraft

For FY 1987, aircraft replacement and acquisition estimates for loan to the 50 States and territories are:

- 21 single-engine reconnaissance aircraft
- 15 twin-engine reconnaissance and cargo aircraft
- 22 helicopters

The current fleet on loan to the 50 States and territories is:

- 88 single-engine reconnaissance aircraft
- 39 twin-engine reconnaissance and cargo aircraft
- 34 helicopters

### Forest Service Consolidated Schedule of Permanent Positions Paid from Funds Available to the Forest Service

### Detail of Permanent Positions

	1985 Actual	1986 Estimate	1987 Estimate
ES-6 ES-5 ES-4 ES-3 ES-2 ES-1 Subtotal	3 7 29 18 2 0 ——————————————————————————————————	3 7 29 18 2 0 59	3 7 29 18 2 0 59
GS-17 GS-16 GS/GM-15 GS/GM-14 GS/GM-13 GS-12 GS-11 GS-10 GS-9 GS-8 GS-7 GS-6 GS-5 GS-4 GS-3 GS-2 GS-1	1 5 226 729 1,834 2,951 5,509 142 5,766 549 4,028 1,621 3,230 2,055 727 66 20 29,459	1 5 221 722 1,814 2,883 5,459 137 5,574 539 3,941 1,595 3,137 2,013 640 58 23 28,762	1 5 211 689 1,730 2,750 5,205 131 5,316 515 3,760 1,522 2,993 1,920 611 55 22 27,436
Positions at rates established by Acts of 6/20/58 and 9/23/5 5 U.S.C. 3104		1	1
Ungraded (wage rate) total permanent positions	1,280	1,243	1,185
Unfilled positions, end of year	(1,466)	(1,416)	(1,351)
Total permanent employment, end of year	30,799	30,065	28,681

### Base Calculation

	1986 Appropriation (Doll	Base <u>Changes</u> ars in thousan	1987 Base ds)
Forest Research	\$ 125,525	\$	\$ 125,525
State and Private Forestry	57,638		57,638
National Forest System	1,078,301 <u>1</u> /		1,078,301 <u>1</u> /
Construction	222,522	-222,522 <u>2</u> /	
Land Acquisition	28,130	-28,130 <u>2</u> /	
Acquisition of Lands for National Forests, Special Acts	777		777
Acquisition of Lands to Complete Land Exchanges	20		20
Miscellaneous Trust Funds	89		89
Range Betterment Fund	3,798		3,798
Operation and Maintenance of Recreation Facilities			
Youth Conservation Corps	(3,380)		(3,380)
Permanent Appropriations	379,657	-22,911 <u>2</u> /	356,746
Trust Funds	155,091		155,091
Reforestation Trust Fund			
Total	\$2,051,548	\$-273,563	\$1,777,985

<sup>1/</sup> Includes \$30,000,000 transferred from Reforestation Trust Fund (P.L. 99-199).

 $<sup>\</sup>frac{2}{}$  The 1987 proposals for Construction, Land Acquisition, and Timber Purchaser Roads Constructed by the Forest Service are justified from a zero base.

## National Forest System Appropriation, by Forest

	FY 1985	FY 1986	FY 1987
Region 1		(Dollars in thousands	5)
Beaverhead Bitterroot Clearwater Custer Deerlodge Flathead Gallatin Helena Idaho Panhandle Kootenai Lewis & Clark Lolo Nezperce Subtotal Regional Office Total, Region 1	\$ 4,559 6,250 9,305 4,859 4,428 8,370 5,691 4,199 16,023 10,504 4,334 10,255 9,393 98,170 26,748	\$ 3,831 5,252 7,819 4,083 3,721 7,034 4,783 3,529 13,464 8,827 3,642 8,617 7,893 82,495 22,478 \$104,973	\$ 3,643 4,994 7,435 3,883 3,538 6,689 4,548 3,356 12,803 8,394 3,463 8,194 7,506 78,446 21,377
Region 2			
Arapaho-Roosevelt Bighorn Black Hills Grand Mesa, Uncompahgre, and Gunnison Medicine Bow Nebraska Pike-San Isabel Rio Grande Routt San Juan Shoshone White River Subtotal Regional Office Total, Region 2	\$ 5,185 3,623 9,592 5,384 5,167 1,962 5,454 3,579 3,905 5,399 3,008 5,137 57,395 9,820	\$ 5,651 3,949 10,454 5,868 5,631 2,138 5,945 3,901 4,256 5,885 3,279 5,599 62,556 10,702 \$ 73,258	\$ 5,374 3,755 9,941 5,580 5,355 2,033 5,653 3,710 4,047 5,596 3,118 5,324 59,486 10,179 \$ 69,665
Region 3			
Apache-Sitgreaves Carson Cibola Coconino Coronado Gila Kaibab Lincoln Prescott Santa Fe Tonto Subtotal Regional Office	\$ 9,033 5,419 6,358 8,385 5,731 7,575 6,147 4,840 4,273 6,044 8,072 71,877 14,436	\$ 8,869 5,320 6,242 8,232 5,627 7,437 6,035 4,752 4,195 5,934 7,925 70,568 14,170	\$ 8,433 5,059 5,935 7,827 5,350 7,072 5,738 4,518 3,989 5,642 7,536 67,099 13,475
Total, Region 3	* 86,313	\$ 84,738	\$ 80,574

## National Forest System Appropriation, by Forest - Continued

	FY 1985	FY 1986 (Dollars in thousa	FY 1987
Region 4		(DOTTALS III CHOUSE	iius į
Ashley Boise Bridger-Teton Caribou Challis Dixie Fishlake Humboldt Manti-LaSal Payette Salmon Sawtooth Targhee Toiyabe Uinta Wasatch-Cache	\$ 5,475 9,634 6,295 2,865 4,064 4,211 3,358 2,694 3,688 9,525 7,192 5,311 7,532 5,265 3,873 5,968	\$ 4,962 8,732 5,706 2,597 3,683 3,817 3,044 2,442 3,343 8,634 6,518 4,814 6,827 4,772 3,510 5,410	\$ 4,719 8,305 5,427 2,470 3,503 3,630 2,895 2,323 3,179 8,212 6,199 4,578 6,493 4,539 3,338 5,145
Subtotal Regional Office	86,950 12,366	78,811 11,208	74,955 10,660
Total, Region 4	\$ 99,316	\$ 90,019	\$ 85,615
Region 5	•		•
Angeles Cleveland Eldorado Inyo Klamath Lassen Los Padres Mendocino Modoc Plumas San Bernardino Sequoia Shasta-Trinity Sierra Six Rivers Stanislaus Tahoe Lake Tahoe Basin Mgt. Unit Subtotal Regional Office	\$ 16,529 8,324 8,930 7,381 14,135 8,669 19,998 8,724 4,957 12,097 11,847 10,787 22,849 11,705 8,626 9,335 9,324 3,099 197,316 20,858	\$ 14,322 7,213 7,737 6,396 12,248 7,511 17,328 7,559 4,295 10,481 10,265 9,347 19,798 10,142 7,474 8,088 8,079 2,685 170,968 18,070	\$ 13,626 \$ 6,862 7,361 6,085 11,653 7,146 16,486 7,191 4,086 9,971 9,766 8,893 18,835 9,649 7,111 7,695 7,686 2,554 162,656 17,191
Total, Region 5	\$218,174	\$189,038	\$179,847
Region 6			
Colville Deschutes Fremont Gifford Pinchot Malheur Mt. Baker-Snoqualmie Mt. Hood Ochoco Okanogan Olympic	\$ 6,355 14,757 7,329 14,564 7,828 9,925 11,812 6,127 8,096 9,310	\$ 5,957 13,833 6,870 13,652 7,338 9,304 11,072 5,744 7,589 8,727	\$ 5,667 13,160 6,536 12,987 6,981 8,851 10,533 5,464 7,220 8,302

## National Forest System Appropriation, by Forest - Continued

	FY 1985	(Dollars in thousands) FY 1987
Region 6, cont.		(Borrard III diladanad)
Rogue River Siskiyou Siuslaw Umatilla Umpqua Wallowa-Whitman Wenatchee Willamette Winema Subtotal Regional Office	\$ 9,548 9,581 8,983 7,487 10,429 12,727 12,715 15,912 8,149 191,634 25,664	\$ 8,950 \$ 8,514 8,981 8,544 8,420 8,010 7,018 6,676 9,776 9,300 11,931 11,350 11,920 11,340 14,917 14,191 7,639 7,267 179,638 170,893 24,058 22,887 \$203,696 \$193,780
Region 8		
National Forests in Alabama Caribbean Chattahoochee-Oconee Cherokee Daniel Boone National Forests in Florida Francis Marion-Sumter George Washington Jefferson Kisatchie National Forests in Mississippi National Forests in North Carolina Ouachita Ozark-St. Francis National Forests in Texas Subtotal Regional Office Total, Region 8	\$ 5,322 1,124 6,639 6,522 6,230 6,803 4,928 5,183 5,206 5,542 7,666 10,822 9,783 7,031 4,638 93,439 18,242 \$111,681	\$ 5,226 \$ 4,971 1,103 1,049 6,518 6,201 6,404 6,092 6,117 5,819 6,679 6,354 4,839 4,603 5,089 4,841 5,112 4,863 5,442 5,177 7,527 7,160 10,626 10,108 9,606 9,138 6,903 6,567 4,554 4,332 91,745 17,911 17,040 \$109,656 \$104,315
Allegheny Chequamegon Chippewa Green Mountain Hiawatha Huron-Manistee Mark Twain Monongahela Nicolet Ottawa Shawnee Superior Wayne-Hoosier White Mountain Subtotal Regional Office Total, Region 9	\$ 4,582 4,429 4,694 2,691 4,768 5,478 8,003 4,127 4,107 4,074 3,265 10,816 4,300 3,765 69,099 9,343	\$ 5,139 \$ 4,889 4,967 4,725 5,264 5,008 3,018 2,871 5,348 5,884 6,143 5,844 8,975 8,538 4,628 4,403 4,606 4,382 4,569 4,347 3,661 3,483 12,131 11,539 4,822 4,587 4,223 4,017 77,494 73,721 10,479 9,969 \$ 87,973 \$ 83,690

## National Forest System Appropriation, by Forest - Continued

Region 10	FY 1985	FY 1986 (Dollars in thousa	nds) <u>FY 1987</u>
Chugach Tongass-Chatham Tongass-Ketchikan Tongass-Stikine Subtotal Regional Office	\$ 4,411 3,795 3,839 2,338 14,383 6,308	\$ 4,308 3,707 3,749 2,283 14,047 6,161	\$ 4,104 3,531 3,571 2,175 13,381 5,869
Total, Region 10	\$ 20,691	\$ 20,208	\$ 19,250
TOTAL, all Regions	\$1,024,048	\$963,559	\$916,559

## Construction Appropriation, by Forest

	FY 1985	FY 1986 FY (Dollars in thousands)	1987
Region 1		(portars in shousands)	
Beaverhead Bitterroot Clearwater Custer Deerlodge Flathead Gallatin Helena Idaho Panhandle Kootenai Lewis & Clark Lolo Nezperce Subtotal Regional Office Total, Region 1	\$ 2,391 1,196 4,367 1,005 1,350 3,117 1,411 1,244 4,234 5,223 1,653 5,661 3,430 36,282 3,648 \$ 39,930	3,339	1,925 963 3,514 809 1,086 2,509 1,135 1,002 3,407 4,203 1,330 4,555 2,760 29,198 2,936
Region 2	, ,,,,,,,	,,	,
Arapaho-Roosevelt Bighorn Black Hills Grand Mesa, Uncompahgre and Gunnison Medicine Bow Nebraska Pike-San Isabel Rio Grande Routt San Juan Shoshone White River Subtotal Regional Office Total, Region 2	\$ 1,809 1,098 2,854 2,389 1,492 409 733 1,436 2,156 2,335 811 1,204 18,726 1,599 \$ 20,325	1,138	1,132 687 1,786 1,496 934 256 459 899 1,349 1,462 508 754 11,722 1,001
Region 3			
Apache-Sitgreaves Carson Cibola Coconino Coronado Gila Kaibab Lincoln Prescott Santa Fe Tonto Subtotal Regional Office Total, Region 3	\$ 1,521 3,203 529 1,176 271 1,773 1,002 620 552 1,777 1,618 14,042 1,381 \$ 15,423	1,148	1,113 2,342 387 860 198 1,296 733 454 404 1,299 1,184 10,270 1,010
iotal, kegion 3	\$ 15,423	\$ 12,024	11,200

## Construction Appropriation, by Forest - Continued

	FY 1985	FY 1986 (Dollars in thousands	FY 1987
Region 4		(DOTTALD THE GROUNDS	,
Ashley Boise Bridger-Teton Caribou Challis Dixie Fishlake Humboldt Manti-LaSal Payette Salmon Sawtooth Targhee Toiyabe Uinta Wasatch-Cache Subtotal Regional Office Total, Region 4	\$ 1,315 2,072 1,150 630 260 1,472 186 212 979 1,454 578 1,101 1,395 327 307 942 14,380 2,141 \$ 16,521	\$ 1,411 2,223 1,233 676 279 1,580 200 227 1,050 1,560 620 1,182 1,497 350 330 1,011 15,429 2,296 \$ 17,725	\$ 1,212 1,910 1,059 581 600 1,358 172 195 902 1,340 532 1,016 1,287 301 283 868 13,616 1,973
Region 5			
Angeles Cleveland Eldorado Inyo Klamath Lassen Los Padres Mendocino Modoc Plumas San Bernardino Sequoia Shasta-Trinity Sierra Six Rivers Stanislaus Tahoe Lake Tahoe Basin Mgt. Unit Subtotal Regional Office	\$ 1,548 621 2,381 1,618 3,194 1,840 462 1,102 831 2,350 668 1,351 2,405 4,478 2,575 1,706 1,867 281 31,278 3,884	\$ 1,330 534 2,045 1,390 2,744 1,580 397 947 714 2,018 573 1,160 2,066 3,847 2,212 1,466 1,603 242 26,868 3,335	\$ 1,169 469 1,798 1,222 2,412 1,389 349 832 628 1,774 504 1,020 1,816 3,381 1,944 1,289 1,409 213 23,618 2,932
Total, Region 5	\$ 35,162	\$ 30,203	\$ 26,550
Region 6			
Colville Deschutes Fremont Gifford Pinchot Malheur Mt. Baker-Snoqualmie Mt. Hood Ochoco Okanogan Olympic	\$ 1,302 2,272 1,339 10,590 2,136 4,068 4,006 1,452 1,084 5,013	\$ 987 1,722 1,015 8,028 1,619 3,083 3,036 1,101 822 3,799	\$ 868 1,514 892 7,058 1,423 2,711 2,669 968 723 3,340

## Construction Appropriation, by Forest - Continued

	FY 1985	FY 1986 (Dollars in thousa	rds) <u>FY 1987</u>
Region 6, cont.		(DOTTALS III CHOUSE	ilius)
Rogue River Siskiyou Siuslaw Umatilla Umpqua Wallowa-Whitman Wenatchee Willamette Winema Subtotal Regional Office Total, Region 6	\$ 1,644 3,487 3,558 1,909 4,619 2,589 2,211 5,113 800 59,192 3,930 \$ 63,122	\$ 1,246 2,643 2,696 1,447 3,501 1,963 1,676 3,876 606 44,866 2,978	\$ 1,095 2,324 2,370 1,272 3,078 1,726 1,474 3,408 533 39,446 2,618
Region 8			
National Forests in Alabama Caribbean Chattahoochee-Oconee Cherokee Daniel Boone National Forests in Florida Francis Marion-Sumter George Washington Jefferson Kisatchie National Forests in Mississippi National Forests in North Carolina Ouachita Ozark-St. Francis National Forests in Texas Subtotal Regional Office Total, Region 8	\$ 1,410 106 1,451 2,219 1,771 1,444 1,541 2,276 2,324 1,262 1,451 4,613 2,127 1,129 1,686 26,810 2,598	\$ 1,459 110 1,502 2,296 1,833 1,495 1,595 2,355 2,405 1,306 1,502 4,773 2,201 1,169 1,745 27,746 2,685 \$ 30,431	\$ 1,283 97 1,321 2,019 1,612 1,314 1,402 2,071 2,115 1,148 1,321 4,195 1,935 1,028 1,534 24,395 2,361 \$ 26,756
Allegheny Chequamegon Chippewa Green Mountain Hiawatha Huron-Manistee Mark Twain Monongahela Nicolet Ottawa Shawnee Superior Wayne-Hosier White Mountain Subtotal Regional Office Total, Region 9	\$ 1,793 1,976 3,251 504 3,007 629 1,638 1,795 1,267 1,664 633 3,501 915 824 23,397 2,578	\$ 1,377 1,517 2,497 387 2,308 483 1,258 1,379 973 1,278 486 2,688 703 633 17,967 1,979	\$ 1,211 1,334 2,196 340 2,029 425 1,106 1,213 856 1,124 427 2,362 618 557 15,798 1,740

## Construction Appropriation, by Forest - Continued

Region 10	FY 1985	FY 1986 (Dollars in thou	usands) FY 1987
Chugach Tongass-Chatham Tongass-Ketchikan Tongass-Stikine Subtotal Regional Office	\$ 1,177 870 1,997 797 4,841 562	\$ 585 432 992 850 2,859 280	\$ 600 443 1,019 406 2,468 287
Region 10, Total	5,403	3,139	2,755
TOTAL, all Regions	\$251,269	\$213,122	\$187,389

# Management Summary of Progress on Implementation of Forest Level Information Processing System (FLIPS)

The Forest Service began installing Data General computers—the backbone of the Agency's distributed processing system—in early 1984. By the end of FY 1986, 775 of the 970 scheduled systems will be operational. This equipment helps the Forest Service manage data and information by integrating data analysis, report generation, word processing, and electronic mail into a Service—wide distributed processing system to support the Agency's mission and basic management functions.

The goal is cost effective use of equipment to support the different nature and mix of work at each organizational level, including data processing at the local level. A high proportion of the work at both Forest and Ranger District offices consists of data analysis and manipulation.

### Status of Installation of Data General Systems

	1983	Actual 1984	1985	1986	1987	Planned 1988	1 1989	1990
Cuatama	1303	1904	1905	1900	1907	1900	1909	1990
Systems ordered	308	142	139	186	140	25	15	15
Systems operational (cumulative)		267	568	775	915	940	955	970

Recent studies of five National Forests show that the Forest Service is achieving greater efficiencies than originally anticipated. Recent benefit-cost analysis indicates a benefit-cost ratio of 1.75--or a \$175 benefit for every \$100 invested in FLIPS.

In addition, 15 National Forests, including their Ranger Districts, are being studied to acquire more precise benefit information. Baseline workload data have been collected and followup surveys are being completed in early 1986. These survey data will be used to update the benefit-cost analysis.

Actual and planned cost data are as follows:

		Actual			ned
	1983	1984	1985	1986	1987
		(Dollar	rs in thou	sands)	
Systems	\$22,977	\$20,408	\$16,623	\$23,719	\$14,900
Software	0	328	930	1,723	1,200
Maintenance	0	791	5,203	7,000	8,000
Telecommunications	752	3,326	6,917	9,233	11,100
Personnel	552	13,275	23,590	28,279	32,000
Site Preparation	3,405	3,363	1,549	1,950	2,200
Other	170	1,595	650	788	800
Total	\$27,856	\$43,086	\$55,462	\$72,692	\$70,200

### Definition of Cost Items

Systems--Data General hardware and software included in the contract, such as the operating system and the word processing package.

Software--Software packages other than those available under the initial Data General contract, such as document exchange, spreadsheet, and statistical packages.

Maintenance--Two available options: (1) Full coverage - Data General performs all maintenance, when needed; and (2) Cooperative coverage - Forest Service and Data General share maintenance responsibility at two-thirds of the full coverage costs.

Telecommunications—Data communication used to support the Data General computer network, including local building networks and services provided by inter/intrastate telecommunication vendors.

Personnel--Employees dedicated to the operation and maintenance of the Data General systems. The number of employees required for each system is highest in the first few years of operation due to installation, training activities, and employees' unfamiliarity with the computer system.

Site preparation--Power, security protection, heating and air conditioning, and room renovations.

Other--Training, Data General support personnel, and supplies (printer ribbons and thimbles, special paper, form feeders, etc.).

Sources of Funding for Data General Computer Contract

	FY 1983		FY 1985 ars in th	FY 1986	imate FY 1987
Research State and Private Forestry National Forest System Construction Land Acquisition Permanent & Trust Funds Transfer Funds	\$ 631 159 17,012 3,120 16 1,804 235	\$ 509 135 14,700 3,313 35 1,519 197	\$ 2,426 125 10,402 2,511  1,159	\$ 2,333 98 16,116 4,027 105 1,040	\$ 2,400 9,375 2,500  625
Total	\$22,977	\$20,408	\$16,623	\$23,719	\$14,900

### Land Management Planning

National Forest Management Act

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA), requires the Secretary of Agriculture to attempt to develop an integrated land and resource management plan for each administrative unit of the National Forest System by September 30, 1985. To implement the NFMA requirements, regulations were developed to guide land and resource management planning on 191 million acres of the National Forest System. The regulations require integrated planning for all resources (i.e., timber, range, fish and wildlife, water, wilderness, and recreation), as well as coordination of other resources, such as minerals.

The NFMA regulations were revised in 1983 in response to a court decision that the 1979 Roadless Area Review and Evaluation (RARE II) environmental statement and associated procedures were inadequate under the National Environmental Policy Act (NEPA). The revision subjects to reevaluation, through forest planning, areas that remain essentially roadless and undeveloped and that have not been designated by Congress for either wilderness or nonwilderness uses.

A major part of the RARE II issue has been resolved through enactment of wilderness legislation. Altogether, 64.7 million acres in roadless areas have been inventoried--62.0 million through the RARE II process, and 2.7 million acres recommended for wilderness through primitive area reviews. Of this, about 16.8 million acres have been designated as wilderness areas; 27.7 million acres have been released for uses other than wilderness; and about 20.2 million of the acres already inventoried remain unresolved, including 3.0 million acres in Alaska. Additionally, 1.4 million acres are still under study in Alaska for possible wilderness designation.

Land Management Planning

The planning process requires a continual flow of information and management direction among the three Forest Service administrative levels: national, regional, and designated forest planning areas. Management direction is based principally upon locally derived information about production capabilities. The direction reflects resource needs and conditions pertinent to all levels and becomes increasingly specific as planning progresses from the national to regional levels and from the Regions to the National Forests.

All nine regional guides have been completed, reflecting the 1980 national program. The regional guides include management decisions in three areas: establishing standards and guidelines, reflecting goals and objectives of the RPA Program that are consistent with resource capabilities, and displaying tentative resource objectives for each National Forest.

The forest land and resource management plans developed under NFMA include management planning for all resources.

Of the 123 forest plans to be developed under NFMA, 23 plans have been finalized and another 67 draft plans have been published or approved for publication.

The remaining 32 draft forest plans, primarily in the Pacific Northwest and Pacific Southwest Regions, are scheduled to be completed by the end of FY 1986. In addition, the Tongass National Forest must complete its plan by 1990.

Although most forest plans in the Pacific Northwest and Pacific Southwest Regions have not been issued in draft, considerable effort is being placed on implementation of published forest plans at the Regional and Forest levels. Implementation of forest plans requires the same types of skills as those necessary in forest plan development.

Administrative appeals are anticipated on the majority of forest plans and litigation is also possible. This will result in considerable work efforts at forest, regional, and national levels. Forest plans will be implemented as funding levels permit; however, those portions of forest plans under appeal will be excluded from funding.

Relationship Between RPA and Land Management Planning
The current forest planning effort uses the 1985 RPA Program
objectives. The 1985 RPA Program is based on data from forest
planning, State forest resource planning, and research planning. As
forests implement their plans, and as the 1985 RPA Program is
implemented through the budget, a closer relationship is expected to
develop between RPA and land management planning.

The following general requirements outline the relationship between RPA and land management planning at the Regional and National Forest levels:

- The 1980 RPA Program provides national direction and regional output levels to the Regions for development of regional guides and forest plans.
- The regional guides disaggregate the regional 1980 RPA output levels to individual National Forests.
- Resource inventories determine the production potential of forest lands. This forest level information is used in preparing forest plans. Each forest evaluates national level RPA objectives to determine if they are compatible with resource supplies, demand levels, economic efficiency, community stability, and potential environmental effects.
- Each National Forest develops its forest alternative in compliance with NFMA regulations, the Chief's direction, the direction in the regional guide, and forest resource inventories.
- The Regions use forest alternative information to build regional alternatives. The regional alternatives are the information base for development of national alternatives and a preferred 1985 national RPA program.

Actual and projected accomplishments include 123 forest plans to be prepared under NFMA.

	FY 1985 Actual	FY 1986 Estimate	FY 1987 Estimate
Draft forest plans	47	32	
Final forest plans	23	56	43
PNW Regional Guide/Spotted Owl Supplemen	t	1	
Number of forest plans under appeal	20	54	43

(Tongass National Forest in Alaska must prepare a land management plan by 1990).

## Sources of funding are:

	FY 1985 Actual	FY 1986 <u>Estimate</u> (Dollars in thousands)	FY 1987 Estimate
National Forest System	\$22,399	\$19,321	\$16,712
Construction	6,579	5,496	4,790
Tongass Timber Supply Fund	69	69	66
Total	\$29,047	\$24,886	\$21,568

### USDA Funds Available for Research and Control of Gypsy Moth, Tussock Moth, and Southern Pine Beetle

	FY 1985 (Dolla	FY 1986 rs in thou	<u>FY 1987 1/</u> sands)
Gypsy moth Research:			
Agricultural Research Service Cooperative State Research Service (CSRS) Forest Service Subtotal, gypsy moth research	389 1,037 2,788 4,214	312 1,331 2,896 4,539	N/A 2/ 337 2,896 3,233
Control:			
Forest Service Animal and Plant Health Inspection Service Subtotal, gypsy moth control	$\begin{array}{r} 3,130 \ \underline{3}/\\ 11,187 \\ 14,317 \end{array}$	4,791 5,142 9,933	350 5,125 5,475
Total, gypsy moth research and control	18,531	14,472	8,708
Tussock moth:			
Research: Forest Service	563	513	513
Control: Forest Service	266	482	100
Total, tussock moth research and control	829	995	613
Southern pine beetle:			
Cooperative State Research Service (CSRS)	658	658	73
Forest Service Forest Service allocation to CSRS	1,641 143	756	815
Subtotal, southern pine beetle research	2,442	1,414	888
Control:			
Forest Service	5,329	2,506	2,500
Total, southern pine beetle research and control	7,771	3,920	3,388
All programs:			
Research Control	7,219 19,912	6,466 12,921	4,634 8,075
Total	27,131	19,387	12,709

<sup>1/</sup> Estimates are based on anticipated trends.

<sup>2/</sup> N/A = Not available.

 $<sup>\</sup>frac{3}{}$  \$700,000 of Forest Service funds provided to Animal and Plant Health Inspection Service.



